Statement of Environmental Effects

High Density Residential Development

St Leonards South – Area 1, 2 and 4
Evergreen

Ethos Urban

Prepared by Ethos Urban
Submitted to Lane Cove Council

19 July 2022 | 2210638

'Gura Bulga'
Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.

By using the green and blue colours to represent NSW, this painting unites the contrasting landscapes. The use of green symbolises tranquillity and health. The colour cyan, a greenish-blue, sparks feelings of calmness and reminds us of the importance of nature, while various shades of blue hues denote emotions of new beginnings and growth. The use of emerald green in this image speaks of place as a fluid moving topography of rhythmical connection, echoed by densely layered patterning and symbolic shapes which project the hypnotic vibrations of the earth, waterways and skies.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We acknowledge the Gadigal people, of the Eora Nation, the Traditional Custodians of the land where this document was prepared, and all peoples and nations from lands affected.

We pay our respects to their Elders past, present and emerging.

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		This document has been reviewed by:	
Sarah Papalia	19/07/2022	Clare Swan	19/07/2022

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1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Lane Cove Council in support of a Development Application (DA) for a residential Development at 4-8 Marshall Avenue, 1-5 Canberra Avenue, and 2-8 Holdsworth Avenue, St Leonards (the site); also known as Area 1, 2 and 4 of the St Leonards South Precinct.

Specifically, this DA seeks approval for:

- Site preparation and excavation works.
- Construction of three residential flat buildings ranging between 12 storeys to 19 storeys, including:
  - 232 residential dwellings (211 apartments and 21 townhouses);
  - 24,703.6m^2 of residential gross floor area; and
  - 3403.3m^2 communal open space.
- Development of recreation areas in the form of a pocket park with a total area of 1,300m^2.
- Construction of four basement levels with 309 car spaces, 82 bicycle spaces, and 23 motorcycle spaces.
- Public domain, landscaping and associated infrastructure works.
- Extension and augmentation of physical infrastructure and utilities as required.

This SEE has been prepared by Ethos Urban on behalf of Evergreen (the proponent) and is based on the Architectural Plans provided by Rothe Lowman (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the site, its environs and the proposed development, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment. The application is recommended for approval given the following reasons:

- The proposed development is consistent with the aims and objectives of the Lane Cove LEP, the Lane Cove DCP, the St Leonards South Landscape Masterplan, as well as the relevant State Environmental Planning Policies and where variations are proposed, these have been justified and achieve a high-quality development.
- The proposed development will deliver high-quality residential dwellings within a strategic location, close to jobs, entertainment, places of interest, and public transport and services.
- The proposed development has been carefully considered in relation to the surrounding context and character of the evolving precinct.
- The supporting technical studies which accompany this DA confirm that the environmental impacts associated with the proposal are generally positive and will not give rise to any adverse impacts that cannot be mitigated and managed.
- The proposed development is suitable for the site and is in the public interest.

This application is Integrated Development, requiring referral and approval from the Water Management Act 2000 under Section 4.46 of the EP&A Act, due to the proposed excavation works intersecting with groundwater.

2.0 Background

2.1 St Leonards South Precinct

In October 2020, the St Leonards South Planning Proposal, including the Landscape Masterplan and the Site-Specific Development Control Plan, which has been incorporated into Part C of the Lane Cove Development Control Plan (Lane Cove DCP), was adopted by Council to provide for high quality residential density based on transit-oriented development principles.

The key planning controls for the precinct, include building height and floor space incentives for residential development that can be sought subject to other development outcomes being delivered. This includes the provision of lot amalgamation, a mix of dwelling types, affordable housing, high-quality landscape areas, including communal open space and public open space, and efficient pedestrian and traffic circulation.

The site is located at Area 1, 2 and 4 within the St Leonards South Precinct and therefore, is subject to Part 7 of the *Lane Cove Local Environmental Plan 2009* (Lane Cove LEP). **Figure 1** provides the location of the site within the St Leonards South Precinct.

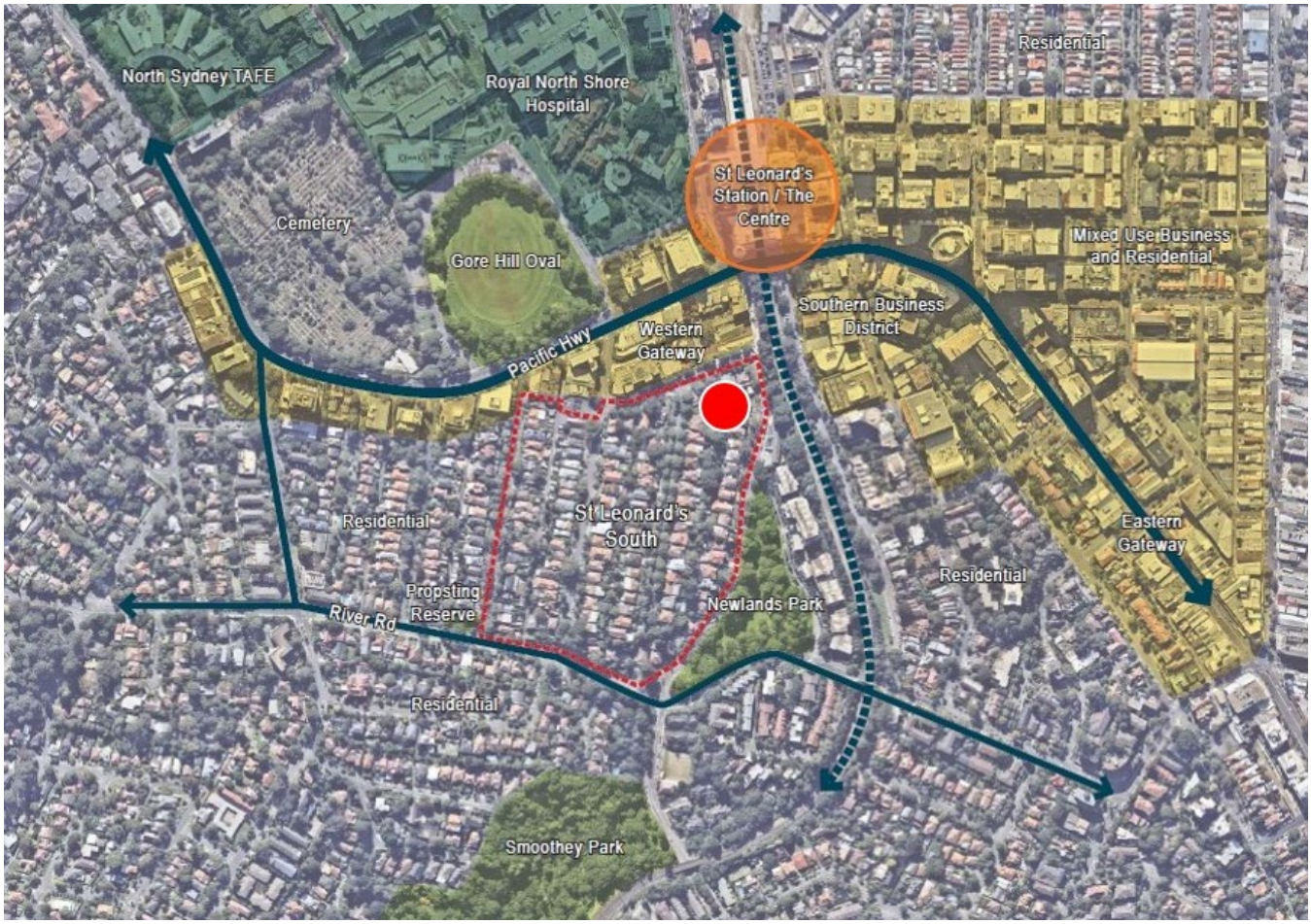

Figure 1 Location of site within the St Leonards South Precinct

Source: St Leonards South Landscape Masterplan

2.2 Pre-Lodgement Consultation

The proposed development has undertaken extensive pre-lodgement consultation with both Lane Cove Council Officers and the Design Review Panel (DRP). The following provides a summary of the key consultation held prior to the lodgement of this Development Application:

- Informal meeting with Council Officers on 27 September 2021 to discuss development application process and matters relating to the acquisition of 2 Marshall Avenue.
- Informal meeting with Council Officers on 16 November 2021 to gain comment and feedback on initial concept scheme. Council officers provided advice on green spine and amenities vision, acquisition of 2 Marshall Avenue, basement carpark strategy, landscaping and deep soil, tree planting and masterplan levels, and affordable housing.
- Formal Pre-DA Meeting with Council Officers on 13 December 2021 to discuss preliminary planning issues. A detailed summary and response to the feedback provided is outlined below.
- Design Review Panel with the Lane Cove Council Design Panel Members on 13 December 2021.
- Design Excellence Panel Meeting with the Lane Cove Council Design Panel Members on 13 May 2022.
- Additional Design Panel Meeting with the Lane Cove Council Design Panel Members on 16 June 2022.

Formal Pre-DA Meeting – 13 December 2021

The proponent attended a Pre-DA Meeting with Council Officer's on 13 December 2021. Council members provided advice, which identified a number of matters to be considered as part of the Development Application. A summary of Council comments and how each have been addressed is provided in **Table 1** below.

Table 1 Summary of Council Comments and Development Response

Council Comment	Development Response
Minimum Site Area	
The applicant must submit documentary proof that genuine negotiation attempts have been made and failed through no fault of the applicant.	Evidence of negotiation with the landowner of 2 Marshall Avenue is being provided under separate cover to Council.
According to Lane Cove DCP, Part B3, 'development for the purpose of residential flat buildings and high-density housing should not result in the isolation of sites such that they cannot be developed in accordance with the relevant planning controls.' It is likely that in the short-term 2 Marshall will remain a single house. In the longer term, it is likely that it will become part of the open space network. The applicant will be required to demonstrate that an orderly and economic use and development of the separate site can be achieved as part of the DA.	Rothe Lowman have undertaken a development analysis of 2 Marshall Avenue, which demonstrates the orderly development options for the site next door in the absence of it being acquired and included in this development application. This is provided in **Attachment A** of the Clause 4.6 at **Appendix H**.
Council could consider a Clause 4.6 variation to reduce the minimum site area. The applicant may submit a Clause 4.6 objection, which will be assessed on merit. The merit of this objection will be assessed in part on the ability of the proposed development to provide the public benefits for which the incentive FSR and HOB is offered, that is public open space of 1,300m^2 and 28 affordable 2 Bedroom Units.	A Clause 4.6 Variation Request has been prepared and is provided at **Appendix H**.
Incentive Floor Space Ratio	
The proposal will exceed the permitted GFA/FSR for areas 1 and 2. Council will not support any breach in the FSR Control. The applicant is to amend the design and reduce the GFA to comply with the controls.	The proposed development complies with the incentive floor space ratio. Refer to **Section 6.1.2** for further details on proposed gross floor area for each building.
Height	
The pedestrian bridge proposed from Area 1 to Area 2 will be elevated approximately 8m above the green spine. The proposed pedestrian bridge within the green spine would breach the 2.5m height control and is not supported.	The pedestrian bridge has been removed from the development and is no longer proposed as part of this application.
Green Spine	

Council Comment	Development Response
The application alleges to have 51% of the green spine as deep soil. However, the plans indicate a large intrusion of basement carparking over the majority of the green spine. Further information is to be submitted clarifying that the proposal complies with the minimum 50% requirement for unencumbered deep soil.	As illustrated in **Appendix E**, the green spine has a total area of 1,680m^2, with 840m^2 of that area being deep soil. This equates to 50% of the green spine being unencumbered deep soil.
Any proposed basement carparking should predominantly be confined to below the buildings above and significant encroachments are prohibited from compromising the Green Spine Area. Basement must go down two levels (underneath building footprint) before intruding into Green Spine, not one. Intrusions after two levels are to be minor.	Upon further discussion with Council regarding basement intrusion and deep soil, the proposed development comprises basement carparking beneath the green spine with a soil depth of 1.5m on top of the basement to enable viable vegetation growth.
Sustainability	
Further details regarding environmental sustainability are to be submitted. The applicant should explore green roofs (trafficable or non-trafficable), green hanging walls. The development should also incorporate solar panels, low energy lighting, water minimisation, combined air-conditioning among other sustainability measures. Sustainable design is a requirement of Design Excellence consideration under LEP Clause 7.6,	An Environmentally Sustainable Development (ESD) Report has been prepared by Stantec and is provided at **Appendix I**.
Stormwater Management	
The DA must be accompanied by a stormwater management plan prepared by a suitable qualified hydraulic engineer, as outlined in Council's DA Guide and is to be in accordance with Part O of Lane Cove DCP. The main important requirements are as follows: • Erosion and sediment control plan • On-site detention • Suitable Water Sensitive Urban Design • A MUSIC Modelling for pollution control analysis • Pump out system for basement. It depends on design floor finishing level. • A Gross Pollutant Trap (GPT) as per MUSIC analysis.	A Stormwater Management Plan has been prepared by Stantec and is provided at **Appendix M**.
Geotechnical Investigation	
A geotechnical report shall be provided to address the following: • A geotechnical report based on boreholes drilled to below basement level is required for assessment. • The report is to contain recommendations including evacuation methods and support, vibration monitoring, and a dilapidation survey. • Groundwater levels are to be recorded to determine if permanent dewatering will be required. If this is the case, the DA may required referral to NSW Office of Water for licensing conditions	A Geotechnical Investigation has been undertaken by Morrow and is provided at **Appendix Q**.
Impacts on public infrastructure and restoration works	
The DA must be accompanied by following additional documents and/or plans prepared by a suitable engineer are required. 1. A report of improvement works programme covering all proposed new and reconstruction of public assets such as kerb/gutter, footpath, pram ramp, pedestrian crossing, etc, around the site. 2. A dilapidation report prepared by qualified engineer is to be submitted including a survey of the neighbouring properties, structures and services; and public infrastructure that may be impacted from induced vibration. 3. A Construction Methodology is required. This shall include traffic management plan as well as storage and manoeuvring areas and impacts on public assets. 4. Depend on dilapidation report and walkover inspection, the applicant shall be requested to reconstruct all public assets damaged by construction activities around the site. In this instance, the applicant must submit Council a plan showing all civil reconstruction works and get approved by Council. 5. All parking, driveway and associated facilities are to be designed to stop road runoff entering the property and constructed in accordance with	The items in this section generally form conditions of consent on the DA. The Traffic Impact Assessment at **Appendix N** addresses the relevant Australian Standard.

Council Comment	Development Response
AS 2890.1.2004 “Off Street Car Parking” satisfying Traffic department, Lane Cove Council. 6. All retaining structures greater than 1m in height are to be designed and certified for construction by a suitably qualified structural engineer. The structural design is to comply with, all relevant design codes and Australian Standards.	
Environmental Health	
Contaminated land assessment is required (PSI, DSI and RAP if necessary)	A Preliminary Site Investigation has been prepared by Geosyntec Consultants and is provided at **Appendix P**.
Waste Management Plan in accordance with Part Q of the DCP. Architectural Plans are to clearly show chutes, compactor and carousel. Council would prefer a larger vehicle have access to the waste collection pick up point to facilitate more efficient waste and recycling collections. Council will accept the use of a turn table for sue with a larger waste truck as a opposed to an SRV.	An Operational Waste Management Plan (OWMP) has been prepared by Elephants Foot and is provided at **Appendix T**.
An Acoustic Report is to address internal/habitable noise levels and the impacts from rail and traffic noise.	An Acoustic Report has been prepared by Stantec and is provided at **Appendix O**.
Environmental management plan that addresses the impacts from the construction phase for sediment and erosion control, dust management, and management and disposal of excavation water.	A sediment and erosion control plan is included at **Appendix M**. A Construction Management Plan will be undertaken by the Construction Contractor post lodgement and will address the relevant requirements, including dust management and disposal of excavation water.
A construction noise management plan is to be submitted.	The Acoustic Report at **Appendix O** addresses construction noise and vibration impacts.
Excavation water management plan is to be submitted to address how water will be treated and disposed offsite during construction.	This will be included as part of the Construction Management Plan to be submitted post lodgement.
The applicant is to consider the use of the hiring of an office space for the period of the excavation works. From past experience with other large construction projects, it is evident that there are a large number of professional people that work from home. Providing a quiet space will reduce the number of noise/vibration related complaints that are likely to be received.	Noted.
Traffic and Parking	
Confirm vertical and horizontal clearances on ramps and loading bays.	The vehicle access ramp is graded at a ratio of 1:20 and a total of three loading and service bays are proposed.
The TIA report is to include proposals for short-term pick up and drop off for taxies, couriers and casual pick-up and drop-off.	A number of recommendations are included within the Traffic Impact Assessment in relation to short-term pick up and drop off zones. Refer to **Appendix N** for further detail.
Make provision for EV charging stations within the site. The number to be in accordance with current thinking. Maybe make all parking spaces be EV ready.	As detailed in the ESD Report at **Appendix I**, the proposed development provides for EV charging stations by integrating charging ‘ready’ infrastructure, allowing homeowners to opt in for EV charging parking spaces.
A Traffic Management and Traffic Control Plan is required in accordance with Australian Standards 2890.1:2004 and Council DCP Part R	The Traffic Impact Assessment has been prepared in accordance with the Relevant Standards and Lane Cove DCP provisions.

Council Comment	Development Response
Provision pf pedestrian and cycling infrastructure. The Traffic Impact Assessment should refer to the St Leonards Transport and Accessibility Study dated September 2017.	Noted.
Swept paths for the largest design vehicle to access the development and for access by garbage trucks to and from the garbage collection points. Council will accept smaller garbage trucks to enter and leave the site, which are 6.6m long 3 axles and require a height clearance of 2.6m. There is to be no on-street garbage collection and residents are not required to move garbage bins up and down stairs to and from the garbage collect points.	The swept path analysis is provided in the Traffic Impact Assessment at **Appendix N**. It is noted that garbage collection will be undertaken within the loading and services area. Refer to **Appendix T** for the Operational Waste Management Plan prepared by Elephants Foot.
Full details of the driveway profile and sight distances to be provided	Refer to the architectural drawings at **Appendix A**.
Landscaping and Trees	
Landscape Checklist The Landscape Architect is required to complete and submit the compulsory Landscape Checklist and submit the Landscape Drawing Package with a completed and signed checklist for assessment.	The Landscape Checklist has been completed by Arcadia and is submitted with this DA.
Arborist Report and Heritage Trees An Arborist Report is required to be submitted as part of Part J of the DCP and to ascertain the high retention value trees onsite. The report shall include existing trees within the property, and any neighbouring trees (including street trees) within 5m of the property boundary with spaces, height, trunk diameter, and canopy spread as per the Landscape DA Checklist.	An Arborist Report has been prepared by the Blues Bros and is provided at **Appendix K**.
Existing Street Trees The Arborist Report shall assess the retention value of the existing *Lophostemon* species along Marshall Avenue and Holdsworth Avenue to determine whether the species are suitable to be retained. The project Landscape Architect and the Arborist should advise in their plans where supplementary street tree planting can occur along these streets.	Refer to the Arborist Report at **Appendix K** and the Tree Strategy at **Appendix E**.
Proposed Street Trees All street trees shall be of a height of at least 4m above natural ground level at time of installation and therefore, covered by Councils Tree Preservation Order. All trees are to be maintained in a healthy condition for the life of the development with replacement trees to be installed within 6 months of the trees demise at the next optimum planting season.	Refer to the Arborist Report at **Appendix K** and the Tree Strategy at **Appendix E**.
Proposed Trees Onsite • The proposal must have a mature canopy cover (existing and proposed) of 50% of the area of communal open space. • New Canopy trees within communal open space (green spine) to include min 50% large sized trees (12m high +) or medium sized trees (8-12m high) and max 50% small trees 9up to 8m high). • No large trees should be located over underground carparks unless a minimum soil depth of 1.3 metres is achieved.	The proposed canopy cover is greater than 50%. Refer to the Tree Strategy at **Appendix E**.
Tree Replacement Ratio Any tree that is removed by the applicant must be replaced at a 1:1 Ratio and depicted on the Landscape Drawings. The replacement trees must be a species that is able to reach the mature height and spread of the removed tree. There must be no net loss of tree canopy cover and selected tree removal shall be at the discretion of Council.	The development proposes a total of 37 new trees, which exceeds a replacement ratio of 1.1. Refer to the Tree Strategy at **Appendix E**.
Rooftop Gardens	
Roof top areas including podium areas are to be designed for use as recreation facilities where practicable and should be of a high standard of finish and design.	Rooftop garden terraces are proposed on the roof of each building, with Building 1 being used for private open space and Building 2 and 4 being used for communal open space.

Council Comment	Development Response
	Open space and landscaping are also proposed on the podiums of the building.
The Communal Open Space at the roof level shall be to a high level of design and shall be equipped with the following: • Natural shade from midsized trees in raised planter boxes. • Additional shade from a retractable awning with the minimum dimension of 3m x 3m. • Toilet facilities • Barbeque facilities • Power points • Water and sink • Direct lift access to the area	The proposed rooftop terraces will comprise BBQ and kitchen facilities, amenities, and seating. Refer to the rooftop terrace strategy provided at **Appendix E** for further details. Communal rooftop areas will be provided direct lift access.
Landscape Masterplan Typologies	
The landscape proposal must correlate to the Typology allocations as outlined within the LMP for St Leonards South.	The proposed landscaping strategy has been designed in response to the St Leonards South Landscape Masterplan.
Green Spine Facilities (within any contiguous area of Green Spine across adjoining development sites) for this site are to include: • BBQ facilities • Childrens play area • Lawn/informal kick around areas • Picnic table and shelters • Deep soil planting • Seating areas.	The Green Spine includes a range of facilities aligned with the St Leonard's South Masterplan requirements. Refer to the Landscape Report at **Appendix E** as well as **Section 4.3** below for further details.
Accessibility	
A comprehensive access report is to accompany the DA demonstrating NCC compliances as well DCP compliance, including, but not limited to: • 80% visitable apartments; • 20% adaptable apartments; • Each adaptable unit is to have 1 car space with a shared zone; • All common areas including outdoor areas are to be accessible to all residents and covered by the Section 88E Instrument; and There is to be a continuous pathway through and around the development.	A BCA Compliance Report and Accessibility Report are provided at **Appendix V** and **Appendix W**, respectively.
The green spine, all common areas and shared spaces are required to be accessible for all residents including parents with prams, people with mobility problems and people who would like to age in place.	The proposed development has ensured that all communal open space areas are accessible to all residents.

Design Review Panel – 13 December 2021

On 13 December 2021, a Design Review Panel Meeting was also held with Lane Cove Council's Design Panel Members.

The Design Review Panel undertook an assessment of the proposed development in accordance with the SEPP 65 principles and the requirement of the project to demonstrate design excellence. The panel provided advice and recommendations to guide the development and improve the design quality of the proposal.

The comments were particularly in relation to built form and scale, connectivity and accessibility throughout the site, residential amenity, sustainability, landscaping and deep soil, safety and security, housing diversity, and design aesthetics.

The advice of the Panel was taken into consideration and amendments were made to the proposed development before meeting again with the Design Review Panel for a Design Excellence Meeting on 13 May 2022.

Design Excellence Panel Meeting – 13 May 2022

On 13 May 2022, a Design Excellence Panel (DEP) Meeting was held. The Panel provided comments on the proposed development application, with particular comments made regarding building materiality and articulation, materiality, sustainability, and Connection with Country.

The Panel commended the design evolution of the scheme since the last meeting, in particular increased site permeability, improved building articulation and pedestrian scale and enhanced apartment layouts and amenity. The panel, however, sought further consideration of a number of matters relating to design details and materials, which were further considered by the project team and returned to the Panel for comment on the 16 June 2022.

Third Design Excellence Panel Meeting – 16 June 2022

Following the DEP meeting, the proponent and project team met with the Panel for the third time on 16 June 2022 to respond to the key issues raised.

The Panel provided final comments on the proposed development application, which have been considered for the submission. The commended the approach for Connecting to Country and development of the landscape design. The Panel appreciated the additional context and solar access studies as well as the extensive design illustrations. The panel, however, sought further consideration of a number of matters in respect the façade design, materiality and sustainability.

In response to the panel's feedback, the following amendments to the proposed development have been made:

1. *Increased solid to glass ratio, and inclusion of additional shading elements. Increase in height of spandrel to the west. Vision glazing is provided as double glazed, clear systems, with a pre-finished cladding panel forming the solid panels to each façade.*
2. *As part of the increased solar shading, a new material is introduced to each tower in the form of vertical sunshades in metallic bronze tone. These elements are angled and placed to block late afternoon summer sun, and allow penetration of winter sun and achieve the significant district views.*
3. *Each tower has a deliberate and specific colour tone across all levels to visually separate each building. In addition, scaling and detailing of the podium has been amended to Tower 2 and Tower 4 to differentiate the streetscape along Holdsworth Avenue.*
4. *A key aspect of the design intent is to achieve a smooth finish to the expressed slab edges. Detail construction methodologies will be developed with contractor input to ensure this intent is achieved. We would anticipate the use of post-tensioning systems that utilise duct style reinforcements to enable a clean, machined finished edge to the slabs. The window spandrel details have been developed as part of the integral window system to ensure a similarly consistent finish across the project and variety of colours.*
5. *Additional shroud element introduced to define the entry and threshold and provide greater visual address. Similarly, the scaling of each of the podiums to Tower 2 and Tower 4 have been developed and further differentiated from one another.*

Council officers have confirmed that the above design solutions and responses adequately address the Panel's feedback. A summary of the Panel's recommendations and the projects design response is provided at **Appendix D**.

3.0 Site Analysis

3.1 Site Location and Context

The site is located at 4-8 Marshall Avenue, 1-5 Canberra Avenue and 2-8 Holdsworth Avenue, St Leonards, also known as Area 1, 2 and 4 of the St Leonards South Precinct, which is located in the Lane Cove Local Government Area (LGA). Marshall Avenue forms the boundary to the north of the site, Canberra Avenue to the east and Holdsworth Avenue to the west. The site is approximately 550m south of the St Leonards Town Centre and 2.5km north of the North Sydney CBD.

The St Leonards South Precinct is currently characterised by low density residential dwellings, however, is zoned for significant uplift, leading to a future character of high density residential with an abundance of open space. The main road corridors providing access to the precinct is Pacific Highway to the north and River Road to the south.

The site is within 400 metres of the St Leonards Station, as well as numerous bus stops on the Pacific Highway that provide a number of services to the Sydney CBD, North Sydney, Chatswood, Northern Beaches, Botany, Lane Cove and Epping.

Figure 2 Site Aerial Map

Source: Nearmap / Ethos Urban

3.2 Site Description

The site comprises a total of ten allotments and is located in a prominent position at the north eastern entry to the St Leonards South Precinct. The site has a frontage of approximately 56 metres to Marshall Avenue to the north, 55 metres to Canberra Avenue to the east and 96 metres to Holdsworth Avenue to the west.

The lots have a combined area of approximately 6,727m^2, forming an irregular shaped, consolidated development parcel. The site has a significant slope of approximately up to 10 metres across the site from the high point at Holdsworth Avenue to the low point at Canberra Avenue. The legal description of each allotment is detailed in **Table 2**.

Table 2 Legal Description of Site

Area No.	Address	Legal Description
Area 1	1 Canberra Avenue, St Leonards	Lot 5 / Section 3 / DP 7259
	3 Canberra Avenue, St Leonards	Lot 6 / Section 3 / DP 7259
	5 Canberra Avenue, St Leonards	Lot 7 / Section 3 / DP 7259
	4 Marshall Avenue, St Leonards	Lot 3 / Section 3 / DP 7259
Area 2	6 Marshall Avenue, St Leonards	Lot 2 / Section 3 / DP 7259
	8 Marshall Avenue, St Leonards	Lot 1 / Section 3 / DP 7259
	2 Holdsworth Avenue, St Leonards	Lot 42 / Section 3 / DP 7259
Area 3	4 Holdsworth Avenue, St Leonards	Lot 41 / Section 3 / DP 7259
	6 Holdsworth Avenue, St Leonards	Lot 40 / Section 3 / DP 7259
	8 Holdsworth Avenue, St Leonards	Lot 39 / Section 3 / DP 7259

3.3 Existing Development

The site currently comprises of a total of 10 single dwelling houses. **Figure 3** to **Figure** 6 provide photographs from each surrounding street.

Figure 3 Existing development viewed from the corner of Marshall Avenue and Holdsworth Avenue

Source: Rothe Lowman

Figure 4 Existing Development viewed from the corner of Marshall Avenue and Canberra Avenue

Source: Rothe Lowman

Figure 5 Existing development viewed from Holdsworth Avenue

Source: Rothe Lowman

Figure 6 Existing Development viewed from Canberra Avenue

Source: Rothe Lowman

3.4 Surrounding Development

The site is situated between the commercial and mixed-use precinct of the St Leonards Town Centre to the north and east, and existing low to medium scaled residential development to the south and the west, which is zoned for higher density residential. The surrounding area contains a number of land uses providing significant access and amenity that will support the development uplift of the site and St Leonards south precinct. Key locations and their distance from the site are outlined in **Table 3** below.

Table 3 The site's distance from key locations in the surrounding area

Location	Travel distance from the site
St Leonards Station and Town Centre	550m (7 min. walk)
Gore Hill Oval and associated open space	600m (8 min. walk)
Royal North Shore Hospital	600m (9 min. walk)
Future Crows Nest Metro Station	1km (14 min. walk)
North Sydney Girls High School	1.4km (17 min. walk)
North Sydney Boys High School	2km (25 min. walk)
North Sydney CBD	2.3km (15 min. bus journey)
Sydney CBD	6.3km (19. min bus journey)

The surrounding context includes the following:

- **North:** Immediately north of the site are residential flat buildings along Marshall Avenue. Beyond is the St Leonards Town Centre and railway station as well as the Royal North Shore Hospital precinct.
- **East:** Immediately east of the site is Canberra Avenue and the railway line. Beyond the railway are a number of mixed-use buildings including the Landmark and St Leonards Square.
- **South:** The St Leonards South precinct extends further south towards River Road. Beyond River Road is the suburb of Greenwich and Wollstonecraft. The North Sydney CBD is located to the south-east of the site.
- **West:** The St Leonards South precinct extends further west towards Greenwich Road.

Figure 7 and **Figure 8** provide images of the surrounding area of the site.

Figure 7 Residential and Mixed-Use Development north of the site along Marshall Avenue

Source: Google Maps

Figure 8 Rail line located east of the site along Canberra Avenue

Source: Google Maps

4.0 Description of Proposed Development

The proposed development is for a high-density residential development at Areas 1, 2 and 4 of the St Leonards South Precinct. Specifically, this application seeks approval for the following:

- Site preparation and excavation works.
- Construction of three residential flat buildings ranging between 12 storeys to 19 storeys, including:
  - 232 residential dwellings (211 apartments and 21 townhouses);
  - 24,703.6m^2 of residential gross floor area; and
  - 3403.3m^2 communal open space.
- Development of recreation areas in the form of a pocket park with a total area of 1,300m^2.
- Construction of four basement levels with 309 car spaces, 82 bicycle spaces, and 23 motorcycle spaces.
- Public domain, landscaping and associated infrastructure works.
- Extension and augmentation of physical infrastructure and utilities as required.

It should be noted that demolition of the existing structures on site will be undertaken via a separate application being lodged as a Complying Development Certificate (CDC).

Architectural Drawings illustrating the proposed development are including at **Appendix A**. A photomontage of the proposed development is shown at **Figure 9**.

Figure 9 Photomontage of the proposed development

Source: Rothe Lowman

4.1 Numerical Overview

The key numeric development information is summarised in **Table 4**.

Table 4 Numerical Summary

Component	Area 1	Area 2	Area 4	Total
Site Area	2736.5m^2	2320.5m^2	1670.5m^2	6,727.5m^2
Floor Space Ratio	3.85:1	3.55:1 (incl Area 4)	3.55:1 (incl Area 2)	-
Gross Floor Area (FSR Calc)	10,535.5m^2	8237.8m^2	5930.3m^2	24,703.6m^2
Gross Floor Area (Proposed)	10,535.5m^2	8525.8m^2	5642.3m^2	24,703.6m^2
Height of Building	65m 19 storeys	53m 15 storeys	44m 12 storeys	-
Dwellings	1 Bedroom: 12 2 Bedroom: 62 3 Bedroom +: 24 Townhouses: 2 Total: 100	1 Bedroom: 19 2 Bedroom:45 3 Bedroom +: 5 Townhouses: 10 Total: 79	1 Bedroom: 15 2 Bedroom: 24 3 Bedroom +: 5 Townhouses: 9 Total: 53	1 Bedroom: 46 2 Bedroom: 131 3 Bedroom +: 34 Townhouses: 21 Total: 232
Affordable Housing (part of total dwelling numbers proposed)	14	7	7	28
Street wall height	2 storeys	4-5 storeys	4-5 storeys	
Setbacks (podium)	Building 1 podium setbacks from the boundary: • 6m setback to 2 Marshall Avenue to the north • 7-9.8m setback to Canberra Avenue to the east • 4.7m setback to Area 3 to the south • 12m setback to the green spine to the west. Building 2 podium setbacks from the boundary: • 12m setback to the green spine to the east • 4-5.5m setback to Holdsworth Avenue to the west. • 8m shared building separation between Building 2 and 4. Building 4 podium setbacks from the boundary: • 12m setback to the green spine to the east • 6-10.5m setback to Area 6 to the south • 4-5.5m setback to Holdsworth Avenue to the west • 8m shared building separation between Building 2 and 4.			
Setbacks (above podium)	Building 1 above podium setbacks from the boundary: • 6m setback to 2 Marshall Avenue to the north • 7m setback to Canberra Avenue to the east • 12m setback to Area 3 to the south • 12m setback to the green spine to the west. Building 2 above podium setbacks from the boundary: • 12m setback to the green spine to the east • 7m setback to Holdsworth Avenue to the west. • 18m shared building separation between Building 2 and 4.			

Component	Area 1	Area 2	Area 4	Total
	Building 4 above podium setbacks from the boundary: • 12m setback to the green spine to the east • 12m setback to Area 6 to the south • 7m setback to Holdsworth Avenue to the west • 18m shared building separation between Building 2 and 4.			
Vehicular Access	Access to common basement via Canberra Avenue			
Parking	309 car spaces, 82 bicycle, and 23 motorcycle parking spaces			
Deep Soil	• 25% of the whole site (excluding the pocket park) • 50% of the green spine			
Communal Open Space	3,403.3m^2			
Public Open Space	1,300m^2 across Area 1 and 2			

4.2 Built Form

The development proposes three residential flat buildings, with four levels of basement parking. The key objective of the design approach is to facilitate a development with a built form and land use that is complementary to the context and character of the site and its surrounds.

4.2.1 Building 1

Building 1 is located within Area 1, with a primary street frontage to Canberra Avenue and a maximum building height of 19 full storeys. At ground level, the building has a 7-9.8m setback to Canberra Avenue, 6m setback to both the northern boundary facing 2 Marshall Avenue, and a 4.7m setback to the southern boundary facing Area 3. The building proposes a two-storey podium, which comprises a residential lobby, two townhouses, and the recreation and pool deck. Above the podium, the building is setback 7 metres from the Canberra Avenue boundary to the east and 12 metres from the southern boundary. Building 1 proposes a total of 100 residential dwellings, including 14 affordable housing apartments.

4.2.2 Building 2

Building 2 is located within Area 2, with a primary frontage to Holdsworth Avenue and a maximum building height of 15 full storeys. At ground level, the building proposes a 4-5.5m setback to Holdsworth Avenue to the west and a 12m setback to the green spine to the east. The building comprises a podium ranging from 4-5 storeys, which comprises the residential lobby, a cinema, a gym, and a range of housing types, including townhouses and apartments. Above the podium, the building is setback 7m from the Holdsworth Avenue boundary to the west and 12m from the green spine to the east. A building separation of 8m at ground level and 18m above the podium is proposed between Building 2 and 4. Building 2 proposes a total of 79 dwellings, including seven affordable housing apartments. Communal open space is proposed on the rooftop of the building.

4.2.3 Building 4

Building 4 is located within Area 4, with a primary frontage to Holdsworth Avenue and a maximum building height of 12 full storeys. At ground level, the building proposes a 4-5.8m setback to Holdsworth Avenue to the west, a 6-10.5m setback to Area 6 to the south, and a 12m setback to the green spine to the east. The building comprises a podium ranging from 4-5 storeys, which comprises the residential lobby and a range of housing types. Above the podium, the building is setback 7m from Holdsworth Avenue, 12m from Area 6, and 12m from the green spine. As noted above, a building separation of 8m at ground level and 18m above the podium is proposed between Building 2 and 4. Building 4 proposes a total of 53 dwellings, including 7 affordable housing apartments. Communal open space is proposed on the rooftop of the building.

4.3 Landscaping and Public Domain

One of the key objectives for the development is to green the site and thus a number of landscaping and public domain works are proposed across the site. This Section, as well as the Urban Design Report (**Appendix B**) and the Landscape Plans (**Appendix E**) provide details of the proposed works.

The proposed landscaping and public domain include several elements, including an abundance of communal open space areas, public recreation areas, and street embellishment. This application also includes landscaped setbacks and breaks in the building mass to soften the built form and provide pleasant amenity for future residents and visitors. The proposed Landscape Masterplan is illustrated in **Figure 10** below.

Figure 10 Proposed Landscape Masterplan

Source: Arcadia

4.3.1 Public Recreation Area

The development proposes 1,300m^2 of public recreation area, which is provided at the northern boundary of the site along Marshall Avenue. This recreation area will act as the gateway to the St Leonards South precinct from the St Leonards CBD and Railway Station. The main elements of the recreation area include the following:

- 'The Park', which will offer a generous flat turf area, inclusive of a footpath, lounge seating, and a picnic shelter.
- 'The Deck', which will provide a lookout point over the park and will include seating, public art and signage that is proposed to be integrated with native planting at the edge of Building 2.
- 'The Garden', which will offer community garden amenity, a flexible turf space with seating opportunities as part of a welcoming entry experience to the lobby of Building 1.

4.3.2 Communal Open Space

The proposed development provides an abundance of communal open space areas with an approximate area of 3,403.3m^2 being dedicated to communal open space. The key elements of communal open space include, the Green Spine, the recreation deck, and the rooftop terraces on Building 2 and 4.

The Green Spine

The Green Spine is an integral part of the proposed development, extending north-south from the pocket park to the southern edge of the site boundary and beyond. The Green Spine has a total developable area of 1,680m^2, with 840m^2 or 50% being deep soil zone.

The Green Spine will offer a communal open space for the purposes of recreation and leisure for the residents of the development to enjoy. It will be enclosed with secure fencing and will be broken up into the following sections, including:

- 'The Bluegum Play', which will provide organic and natural play elements that are nestled within lush planting.
- 'The Palms', which will offer a relaxing extension of the play area and will include hammock furniture and a tennis table.
- 'The Clearing', which will provide flexible open turf area and several resident amenities such as a barbeque area and dining spaces, shade structures and seating areas.
- 'The Nature Walk', which offers an informal walkway providing an opportunity to connect both developments into a unified green spine.

Recreation Deck

The Recreation Deck is located on Level 1 and Level 2 of Building 1 and will be accessible for all residents of the precinct through the lobby and the green spine. The deck will include both a lap pool, 2x spas, a decking area, lounge furniture and chairs, dining table and appropriate planting.

Rooftop Terrace

The proposed development comprises of two communal rooftop terraces, one on Building 2 and one on Building 4. Each of them will offer a great space for relaxation with a great view of the precinct and broader district and will include BBQ and kitchen facilities, outdoor working space, and lounge and bar seating. The proposed terraces are designed at a high-quality standard and are further detailed in **Appendix E**.

4.3.3 Street Embellishment

Due to the rationalisation of vehicular access, various contributions to the streetscape are proposed as part of the landscape design. New trees are proposed to be planted on each street, which will contributed to the aesthetic improvement of the streetscape. For further detail, refer to the Landscape Plans and Report prepared by Arcadia at **Appendix E**.

4.4 First Nations and Connecting with Country

Arcadia, in collaboration with Uncle Professor Dennis Foley, a Cammeraygal man, have proposed a Connection to Country Strategy, which will be embedded throughout the site in many forms relating to materiality, colour, texture, art, signage, and planting. **Figure 11** below provides an excerpt of the strategy.

Figure 11 Connection with Country Strategy

Source: Arcadia and Uncle Professor Dennis Foley

4.5 Public Art

The Public Art Strategy prepared by UAP in collaboration with Rothe Lowman and Arcadia is provided at **Appendix F**. The purpose of the strategy is to provide guidelines for the procurement of public art, which reflect the design excellence aspirations of the client, design team and Council as well as responding to the unique characteristics of the site and tie back to the Connecting with Country Strategy. The strategy identifies two potential locations for public art within the pocket park as they have the greatest exposure to the public domain. The Strategy finds opportunity for a singular sculpture of a small to medium size in either of these locations. **Figure 12** illustrates indicative ideas for artwork opportunities for the pocket park.

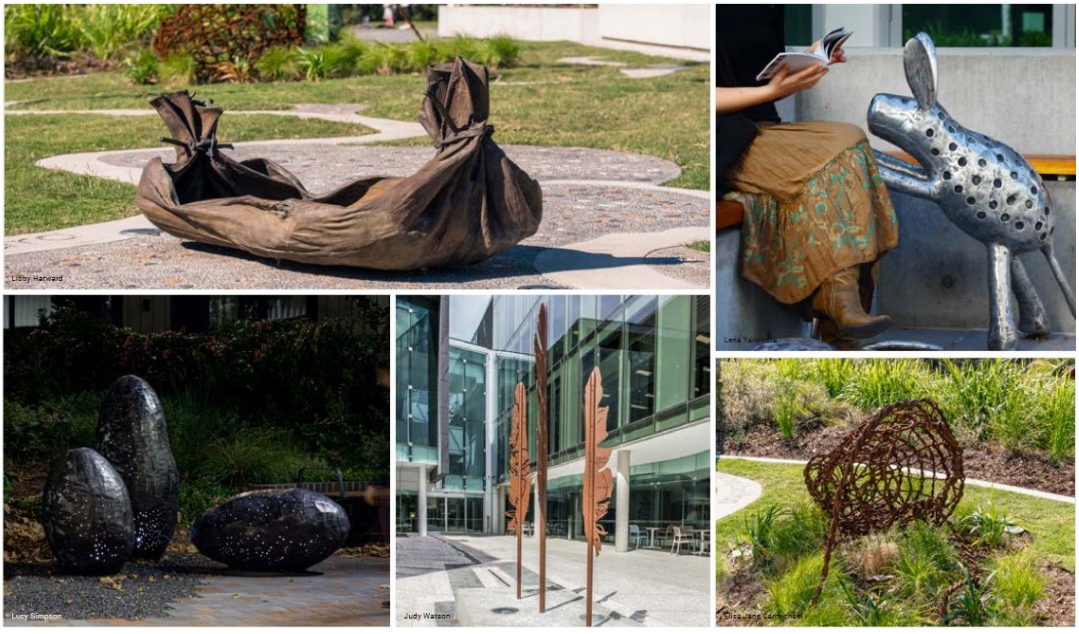

Figure 12 Indicative Artwork Opportunities

Source: UAP

4.6 External Materials and Finishes

The external materials and finishes of the proposed buildings have been developed to respond to the three different street frontages. The façade types and materiality of the proposal are described below and in the Urban Design Report at **Appendix B**.

The façade strategy is broken up into two key elements, being the podium and the tower. The proposed development will be constructed using a variety of materials and finishes to create a contemporary, high-quality development that directly responds to the context and is compatible with the surrounding built form and transitioning precinct, while providing visual interest and amenity to the streetscape.

The key materials selected will provide a balance between hard surface and soft surface and will primarily comprise of precast concrete, metal finishing, glazing, and plants. Each building will propose a slightly different façade response through varying colour palette and architectural features. This is further detailed in **Section 6.3** of this report.

The proposed materials and finishes for both the podium and tower are illustrated in the Urban Design Report at **Appendix B.**

4.7 Tree Removal

An Arboricultural Report has been prepared by Blues Bros (**Appendix K**) to determine the retention value of each tree. The development proposes to remove a total of 19 trees, which have all been assessed to have a low retention value or to be exempt species. Regardless, the development proposes to replace those trees with an additional 37 new trees and the potential replant of 12 trees. Refer to **Section 6.8** of this report for further detail and the Tree Strategy within the Landscape Report at **Appendix E**.

4.8 Site Access and Parking

A Traffic and Parking Assessment has been prepared by Stantec and is included at **Appendix N**.

Vehicular Access

The development proposes a consolidated four level basement carpark for residents and visitors, including a lower ground loading dock, which will be accessed via Canberra Avenue.

Pedestrian Access

Pedestrians can access the site from the residential lobbies of each building, which can be accessed from all street frontages, including Canberra Avenue, Marshall Avenue, and Holdsworth Avenue. Additionally, pedestrians can also access the development through the pocket park to the north and the through site link between Area 2 and 4, connecting Holdsworth Avenue and the Green Spine.

Parking and Service Arrangements

The basement provides a total of 309 car parking spaces, 82 bicycle parking spaces, and 23 motorcycle spaces. The proposed development also includes three loading and servicing spaces, which allow small-medium rigid vehicle trucks.

4.9 Waste Management

An Operational Waste Management Plan has been prepared by Elephants Foot and is provided at **Appendix T**.

One dual chute, comprising of one general waste chute and one comingled recycling chute will be installed in each of the three buildings, which will be accessed on each residential level.

General waste will discharge from the cuts into 660L MGBs on linear track systems in the chute discharge rooms located on basement level 1. General waste is intended to be compacted at the site. Comingled recycling will discharge into single 660L MGBs and will not be compacted.

The areas allocated for waste storage and collections are detailed in **Table 5** below and are estimates only. The waste room areas have been calculated based on equipment requirements and/or bin dimensions with an additional 70% of bin GFA factored in for manoeuvrability.

Table 5 Waste Room Area

Level	Waste Room Type	Equipment and MGBs	Estimated Area Requirement
Basement 1	Chute Discharge Room (Building 1)	• 1 x 2 Bin 660L Linear Track System (General Waste) • 1 x 660L MGB (Comingled Recycling) • 1 x 660L Service Bin • 19 x 240L MGBs (Paper/Cardboard Recycling)	28
	Chute Discharge Room (Building 2)	• 1 x 2 Bin 660L Linear Track System (General Waste) • 1 x 660L MGB (Comingled Recycling) • 1 x 660L Service Bin • 16 x 240L MGBs (Paper/Cardboard Recycling)	25
	Chute Discharge Room (Building 4)	• 1 x 2 Bin 660L Linear Track System (General Waste) • 1 x 660L MGB (Comingled Recycling) • 1 x 660L Service Bin • 13 x 240L MGBs (Paper/Cardboard Recycling)	23
	Bulky Waste Storage Room	N/A	30
	Bin Holding / Collection Room	• 17 x 660L MGBs (General Waste) • 11 x 660L MGBs (Comingled Recycling) • 48 x 240L MGBs (Paper/Cardboard Recycling) • 1 x Ride-on Bin Moving Device.	100

4.10 Stormwater Management

A Stormwater Management Plan has been prepared by Stantec and is provided at **Appendix M**.

The proposed development comprises one on-site detention (OSD) tank with a storage volume of 0.0255L per square metre. The tank incorporates an orifice plate leading into a discharge control pit to control the minor (20-year ARI) storm events and an overflow weir for the major (100-year ARI) storm events.

A 30m^3 rainwater tank is also proposed to be incorporated into the stormwater drainage system, which will retain and reuse rainwater for landscape irrigation.

The location of the proposed OSD and rainwater tank are illustrated on the Civil Drawings provided at **Appendix L**.

4.11 Environmentally Sustainable Development

The proposed development has been designed taking into account Environmentally Sustainable Development (ESD) principles. A BASIX Report and Certificate has been prepared and provided by Stantec and is located at **Appendix J**.

Stantec has also prepared an ESD report, which sets out the various ESD initiatives that are being incorporated into the development and confirms that the proposed development meets the relevant energy and water reduction targets.

The following outlines a summary of the key sustainability measures that have been incorporated into the proposed development:

- Power supply is origin renewable;
- Electric Vehicle charging infrastructure in basement;
- Water Sensitive Urban Design throughout the green spine;
- Achieve a NatHERS rating that exceeds the minimum requirement;
- Architectural shading and façade strategy to minimise heat load.
- Year round communal spaces with solar access through diverse locations and arrangements.
- Amplified site landscaping strategy to increase green cover on development. Approximately 55% of the subject site will be green scape due to large public, private and elevated landscaping.
- Photovoltaic panels to all rooftop spaces

Further detail on the proposed sustainability measures are provided in the ESD Report at **Appendix I**.

4.12 Construction Management

A detailed Construction Management Plan (CMP) will be prepared by the appointed contractor prior to the commencement of works. The CMP will address the following matters:

- Material management;
- Construction traffic management;
- Health and Safety;
- Equipment / materials staging and parking;
- Dust control measures; and
- Methods for disposal of demolition waste.

It is proposed that the development will be constructed in stages. As such, it is requested the Council include in its conditions of consent the ability for staged construction and occupation certificates. It is requested that the conditions be appropriately aligned with particular stages of construction and occupation – being Areas 1, 2 and 4.

The detailed CMP will be issued to Council (as a condition of consent) to detail the proposed stages and how the applicant will manage the construction and occupation of the site.

5.0 Planning Assessment

This section considers the planning issues relevant to the proposed development. It contains our assessment of the environmental impacts of the proposal and identifies the steps to be taken to prevent or mitigate the potential impacts on the development.

5.1 Strategic Plans and Policies

The consistency of the proposed development with the relevant strategic plans and policies is detailed in **Table 6** below.

Table 6 Summary of compliance with relevant Strategic Plans and Policies

Plan	Comment
A Metropolis of Three Cities	The DPIE released the final Greater Sydney Region Plan in March 2018. The plan aims to ensure land use and transport opportunities development more equitably across Greater Sydney. The proposed development is consistent with the following objectives outlined in the Plan: • Services and infrastructure to meet the communities' growing population and changing; • Greater housing supply; and • Housing is more diverse and affordable. The proposed development will increase the diversity of housing types within the North Sydney LGA, by providing different dwelling typologies in an accessible location, with good bus, train and walking/cycling connections, as well as affordable dwellings.
North District Plan	The site is located within the North District. The North District Plan provides a range of priorities and actions to support the strategic growth of Sydney's North District. The North District Plan recognises a housing target for an addition 92,000 dwellings by 2036 and a job target of 54,000-63-500 by 2036. The proposed development is consistent with the relevant North District Plan as follows: • The development will provide housing that will contribute to a walkable and connected neighbourhood, appealing to the wider demographic. • The site will increase housing density and capacity within the St Leonards South precinct, which will assist in contributing to the provision of housing in line with Council's targets. • The site is within close walking distance to both the St Leonards Train Station and the future Crows Nest Metro Station, and therefore will assist in the delivery of a 30-minute city. • The development will provide an abundance of public recreation areas and communal open space with an extensive tree canopy cover. • The development will provide affordable dwellings as nominated by the precinct LEP.
St Leonards and Crows Nest 2036	The St Leonards and Crows Nest 2036 Plan was released in August 2020 and aims to support continued growth in the health and technology sectors while becoming a major centre for works, residents, students, visitors and the local population. Amongst other things, the Plan notes that by 2036, St Leonards and Crows Nest will be a community that 'caters for the needs of people of all ages', where it will provide a greater mix of home for the diverse range of people that live in the area. The St Leonards South Rezoning is included within the precinct outlined under the 2036 Plan, and therefore the vision and objectives apply. The proposal's consistency with the vision outlined under the 2036 Plan is as follows: • The redevelopment will increase vibrancy and life around, and within the St Leonards South Precinct by revitalising the area with contemporary dwellings that will provide high quality design and built form to the surrounding streets. • The proposal will improve pedestrian accessibility and movement by providing housing close to the St Leonards Railway Station and the future Crows Nest Metro Station. • The proposal will facilitate a development that will provide a total of 232 residential dwellings. The dwellings will have a variety of sizes, configurations and bedroom numbers and will be suitable for a range of residents including singles, couples, and families.

Plan	Comment
	• The proposal will contribute to the network of open space and public domain within the area by providing approximately 1,300m^2 of public recreation area, which will act as the gateway between the St Leonards CBD and St Leonards South Precinct. • The proposal will maintain and expand tree canopy, ensuring comfortability and amenity for the community. Overall, the proposed development is consistent with the 2035 Plan's vision as it seeks to provide additional housing within the walkable catchment of the St Leonards Railway Station and the future Metro Station. Furthermore, the proposal seeks to incorporate design principles that will facilitate a high-quality built form outcome, which responds closely to existing and future desired character of the precinct.
Lane Cove Local Strategic Planning Statement	In March 2020, Lane Cove Council adopted their Local Strategic Planning Statement (LSPS), which guides land uses in the Lane Cove LGA to 2036. The LSPS outlines Council's strategic vision for St Leonards and Crows Nest, and the following provides a summary of the proposal's consistency with the plan: • Planning Priority 3: The proposed development has undertaken extensive consultation with Council and the Design Review Panel as specified under **Section 2.2**. • Planning Priority 4: The proposed development offers high quality communal open space and public recreation areas that will encourage social connection. • Planning Priority 5: The proposed development will deliver a range of different housing typologies in the form of both apartments and townhouses and ensures housing diversity that is sustainable, liveable, accessible and affordable. • Planning Priority 6: The proposed development involves the creation of new public open spaces that have been designed accordingly to improve quality of life, through commitments to connecting with Country and landscaping. • Planning Priority 10: The proposed development will enhance the urban tree canopy by retaining trees where possible and proposing new planting that is sympathetic to the surrounding landscape. • Planning Priority 11: The proposed development has been designed to improve the management of energy, water and waste resources. The proposal meets and exceeds the ESD targets as specified in **Appendix I**.
Lane Cove Local Housing Strategy	On 14 September 2021, Lane Cove Council adopted their Local Housing Strategy, which provides an evidence-based framework that informs how and where residential development is planned to be delivered, to encourage and support a diverse population for the next 20 years. The Strategy identifies St Leonards South as a transitioning character area, where the existing precinct is proposed for redevelopment, thus resulting in a significant population increase, which is anticipated to bring approximately 1,850 more dwellings by 2026. The proposed development is consistent with the vision of the Strategy in that it will contribute to meeting the housing targets specified for the precinct.

5.2 Environmental Planning Instruments

The DA's consistency and compliance with the relevant environmental planning instruments is considered in the sections below. Variations to, and non-compliance with, the key standards and guidelines highlighted in the table are discussed in the following sections of this environmental assessment.

5.2.1 State Environmental Planning Policies

The relevant State Environmental Planning Policies (SEPPs) are assessed at **Table 7** below.

Table 7 Summary of consistency with State Environmental Planning Policies

Plan	Comment
State Environmental Planning Policy (Resilience and Hazards) 2021	The Preliminary Site Investigation prepared by Geosyntec Consultants and included at **Appendix P**, identifies the potential for contamination at the site. The findings of the report do not indicate the presence of widespread contamination at the site and that the site can be made suitable for the intended residential uses.
State Environmental Planning Policy No. 65 – Design Quality of Residential Apartments	The proposal is consistent with the nine design principles listed in Schedule 1 of the SEPP 65. A Design Verification Statement and a complete assessment of compliance against the relevant provisions of SEPP 65 and the Apartment Design Guide (ADG) prepared by Rothe

Plan	Comment
	Lowman is provided at **Appendix C**. Consideration of the NSW Apartment Design Guide is set out at **Section 6.6** of this report.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	A BASIX Certificate is provided at **Appendix J** as well as an Environmentally Sustainable Development (ESD) Report at **Appendix I**. It is noted that the proposed development will be aiming to achieve additional BASIX compliance above the mandated minimum.
State Environmental Planning Policy (Transport and Infrastructure) 2021	The proposed development is classified as traffic generating development in accordance with Schedule 3 of the Transport and Infrastructure SEPP, as the development contains more than 200 parking spaces.
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Chapter 2 of the Biodiversity and Conservation SEPP details provisions regarding the preservation and management of vegetation in non-rural areas. Since the site is zoned R4 High Density Residential and is located within the Lane Cove LGA, the provisions of this chapter apply to the proposed development. While the proposal will require the removal of 19 trees to accommodate the proposal, the works also include replacement planting of 37 new trees as well as the potential to replant 12 existing trees, which is considered to adequately compensate for the removal of the trees. This is further discussed in **Section 6.8** below. Chapter 10 of the Biodiversity and Conservation SEPP applies to land in the Sydney Harbour Catchment, of which the site forms part of. While the site is located within the boundaries of the Sydney Harbour Catchment, the site is not 'zoned' under this plan, nor is it located within the 'foreshores and waterways area', where the majority of the plan's provisions apply. The key matter for consideration is therefore visibility from Sydney Harbour and the management of stormwater in the catchment. While the site may be visible form the harbour from certain vantage points, it is located in the dense setting of the St Leonards CBD. The proposal will present a building compatible in height and built form to surrounding development and has been designed to appropriately transition between the commercial and mixed-use land uses to the north and the residential land uses to the south. The proposal will also replace existing aged single dwellings with an improved residential development that will contribute to the charter of the area as viewed from the Harbour. All environmental impacts of stormwater will be managed as per Stormwater Management Plan prepared by Stantec (**Appendix M).**
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	The demolition of the existing structures on the site is being undertaken via a Complying Development Certificate pursued under Part 7 of the Exempt and Complying Development Codes SEPP.

5.2.2 Lane Cove Local Environmental Plan 2009

The Lane Cove Local Environmental Plan 2009 (Lane Cove LEP) is the primary environmental planning instrument that applies to the site. An assessment of the proposed development against the relevant standards and provisions of the Lane Cove LEP is provided in **Table 8** below.

Table 8 Relevant Provisions from Lane Cove LEP

Clause	Comment	Compliance
2.1 Land Zone	The site is zoned R4 High Density Residential, where residential flat buildings and multi-density residential is permitted with development consent. Further to this, the proposed development is considered to be consistent with the R4 High Density Residential Zone in that: • The proposal provides residential land uses commensurate with the existing context and transitioning nature of the St Leonards South precinct; • The proposal will provide high quality residential amenity; and • The proposal incorporates a high quality built form so as to create an interesting and vibrant residential environment.	✓
5.1 Heritage Conservation	The site is not located within a heritage conservation area, nor is it identified as a heritage item.	✓

Clause	Comment	Compliance
7.1 Development on land in St Leonards South Area	The proposed development achieves the maximum height of building that is required under the incentive maps specified under subclause 3(a), which are: • Area 1: 65m • Area 2: 53m • Area 4: 44m • Recreation Area and Green Spine: 2.5m The proposed development is consistent with the maximum incentive building heights. As detailed further in **Section 6.1.3**, solar shading devices are proposed on the eastern facades of Buildings 2 and 4, which extend horizontally at various levels. These devices comply with the maximum height applicable to Areas 2 and 4, however, will slightly extend into the green spine 2.5m height control. Despite this, the 2.5m height control in the green spine does not technically apply to the proposed shading devices as they do not constitute or fit within the definition of a "building". Legal advice prepared by Mills Oakley at **Appendix Y** has confirmed this approach.	✓
	The proposed development achieves the maximum floor space ratio that is required under the incentive maps specified under subclause 3(b), which are: • Area 1: 3.85:1 • Area 2: 3.55:1 • Area 4: 3.55:1 The proposed development is consistent with the maximum incentive floor space ratio (FSR) of 3.85:1 for Area 1 and 3.55:1 for Area 2 and 4. Based on existing precedent within the precinct, gross floor area (GFA) can be distributed across Areas 2 and 4 as the same FSR standard of 3.55:1 applies. This strategy has been adopted and as such, the proposed FSR for Area 2 slightly exceeds the maximum, while the proposed FSR for Area 2 remains below the maximum. Refer **Section 6.1.2**.	✓
	Under Subclause 4, the development must achieve the following in order to utilise the incentive height and floor space ratio above:	✓
	(a) at least 20% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development will be studio or 1 bedroom dwellings, or both, and	✓
	(b) at least 20% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development will be 2 bedroom dwellings, and	✓
	(c) at least 20% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development will be 3 or more bedroom dwellings, and	✓
	(d) the development will provide appropriate building setbacks to facilitate communal open space between buildings, and	✓
	(e) the development will comply with the requirements of clause 7.2 in relation to the minimum site area of the development, and	✓/× *Justified below and in **Appendix H***
	(f) the development will, if applicable, comply with the requirements of Clause 7.3 in relation to the minimum number of dwellings that will be used for the purposes of affordable housing, and	✓
	(g) the development will, if applicable, comply with the requirements of clause 7.4, in relation to the minimum area that will be used for the purpose of recreation areas and community facilities, and	✓
	(h) the development will, if applicable, comply with the requirements of clause 7.5 in relation to the provision of pedestrian links and roads.	N/A

Clause	Comment	Compliance
7.2 Minimum Site Area requirements	The minimum site area requirements for the site are as follows: • Area 1: 3,000m^2 • Area 2: 2,000m^2 • Area 4: 1,500m^2 The proposed development will achieve the minimum site area for Area 2 and 4, however, Area 1 will have an approximate area of 2,700m^2 as 2 Marshall Street has not been able to be acquired under reasonable teams. A Clause 4.6 Variation Request has been prepared to justify the variation and is provided at **Appendix H.**	✓/x *Justified below and in **Appendix H***
7.3 Minimum Affordable Housing Requirements	The proposed development achieves the minimum affordable housing requirements outlined below: • Area 1: 14 apartments • Area 2: 7 apartments • Area 4: 7 apartments	✓
7.4 Minimum recreation area and community facility requirements	The proposed development achieves the minimum recreation area and community facility requirements outlined below: • Area 1: at least 900m^2 will be used for the purposes of recreation areas. • Area 2 or Area 12: at least 400m^2 will be used for the purposes of recreation areas.	✓
Clause 7.6 Design Excellence	A detailed assessment against the design excellence provisions is provided in Section 6.2 of this report as well as the development response to the DEP feedback at **Appendix D**.	✓

5.3 Development Control Plans

The proposed development is consistent with the objectives of the Lane Cove Development Control Plan (Lane Cove DCP) and the relevant controls. As required under Section 4.15(3A) of the EP&A Act, a consent authority is required to apply DCP provisions flexibly and allow reasonable alternative solutions that achieve the objectives of those standards.

The proposed development is generally consistent with the DCP. An assessment of the proposed development against the relevant provisions of the Lane Cove DCP is provided at **Table 9** below.

Table 9 Consistency with the Lane Cove DCP

Control	Comment	Compliance
B6 Environmental Management		
6.2 Wind Standards for St Leonards	A Wind Effects Report has been prepared by CPP Wind to ensure the proposed development does not result in any adverse wind impacts on recreational facilities on podium terraces within developments (**Appendix R**).	✓
B8 Safety and Security		
8.1 Activation	The proposed ground floor dwellings of the development have been designed to ensure street activation with direct access from the street. Additionally, each dwelling will have windows facing the street.	✓
8.2 Passive Surveillance	The proposed development has been designed accordingly to ensure passive surveillance for the safety and security of residents and visitors. Each dwelling has been oriented to have habitable living areas to provide direct outlook to the streets and public domain. Additionally, the development provides controlled access to the apartments via the secure basement car park and residential lobby.	✓
C3 Residential Flat Buildings		
3.9 Design of Roof Top Areas	The rooftop of building 1 is proposed to be used for private open space, while the rooftop of building 2 and 4 are proposed to be used for communal open space. These spaces have been designed accordingly and are further detailed in the Landscape Plans provided at **Appendix E**.	✓
3.10 Size and Mix of Dwellings	The size of each dwelling is compliant with the provisions of the DCP. The proposed unit mix is provided in accordance with Clause 7.1 of the Lane Cove LEP.	✓

Control	Comment	Compliance
3.11 Private Open Space (Balconies and Terraces)	Each apartment comprises a balcony with a minimum area of 10m^2 and minimum width of 2m. Additionally, each townhouse also comprises of a private terrace with a minimum area of 16m^2.	✓
3.12 Ceiling Heights	The floor to ceiling height for each building is compliant with the requirements of the DCP.	✓
3.13 Storage	All proposed apartment storage meets or exceeds the minimum requirement. All units have 50% of the storage internal to the unit and is accessible from the hall or the living room.	✓
St Leonards South Precinct (Part C8 Residential Locality)		
3. Overall Objectives	The proposed development is consistent with the overall objectives of the St Leonards South Precinct, in that it: • assists in the creation of highly liveable transit-oriented residential precinct that integrates with St Leonards Station and the broader CBD that encourages community interaction, and active transport. • demonstrates design excellence, as well as providing a suitable transition between the St Leonards CBD and the St Leonards South Precinct. • contributes to the diverse housing supply, including affordable housing that meets the needs of the community and can cater towards different household types. • minimises traffic and parking impacts through the proposed parking supply within the basement car park. • enhances the public domain and facilitates an accessible pedestrian network. • provides a variety of public recreation areas and communal open space that is accessible and functional for residents and visitors. • delivers a sustainable and energy efficient building that helps contribute to a low carbon precinct.	✓
4. Structure Plan	The proposed development is consistent with the intended land use and residential density of the structure plan.	✓
5. Access	**Access Network** The connection between the St Leonards Station and South Precinct was indicatively shown on the DCP connections map. As 2 Marshall has not been acquired, the connection through this site is not shown. However, the architectural plans detail legible and convenient access from the site to the station consistent with the masterplan objectives. A direct pathway is provided from each lobby to Canberra Avenue or Holdsworth Avenue, which provides a short walk to St Leonards Railway Station.	✓ Convenient and legible access to and from the site provided without 2 Marshall Avenue. DCP objective achieved.
	Sustainable Transport Green Travel Initiatives are outlined in Traffic and Parking Assessment prepared by Stantec at **Appendix N**. A Sustainable Transport Plan can be provided as a condition of consent.	
6. Infrastructure	**Recreation Areas (Public Open Space)** The proposed development is consistent with the indicative recreation area map as it provides 1,300m^2 of recreation area at the northern boundary along Marshall Avenue across Areas 1 and 2.	✓
	Affordable Housing The proposed development comprises a total of 28 affordable housing apartments with a minimum of 2 bedrooms and an internal area of at least 70m^2.	✓
7. Built Form	**Amalgamation** The proposed development generally complies with the required minimum lot size, however, as mentioned previously, Area 1 proposes an alternative amalgamation pattern as 2 Marshall Avenue has not been acquired. A Clause 4.6 Variation Report has been prepared and is provided at **Appendix H** to justify the minor variation.	× Refer to **Appendix H** for justification.

Control	Comment	Compliance
	Setbacks The proposed development has been designed with the following setbacks: • Front Setbacks to Canberra and Holdsworth Avenue: – 4m at ground level – +3m above podium • Rear building setbacks of 12m to ensure a consistent width of 24m within the green spine.	✓
	Building Separation The proposed building separations have been designed accordingly with the ADG and are further discussed in **Section 6.6** below and **Appendix C**.	Partially complies. Variation justified. See **Section 6.6.**
	Building Depth The proposed development is partially compliant with the required maximum building depth. Area 2 and 4 propose a tower depth of 20m, while Area 1 has a tower depth of 25m, however, due to its relatively square floor plate, it maintains a high level of natural light and ventilation to all apartments. The configuration of apartments and building identification is designed with light penetration and amenity considered.	Partially complies. Variation justified.
	Building Orientation/Length The proposed buildings are oriented north and south, and therefore, is compliant.	✓
	Building Articulation The proposed development incorporates architectural features, breaks and balconies to articulate the building. Additionally, planting and materiality contribute to the building articulation. Further information is provided in **Section 6.3** of this report.	✓
	Height of Storeys The proposed development is compliant with the requirement and proposes building heights in storeys as follows: • Building 1: 19 • Building 2: 15 • Building 3: 12	✓
	Solar Access The solar access when averaged across the overall development can be achieved for indicatively 64% of apartments. As stated in **Section 6.6.2** of this report, consideration to the surrounding shadow impacts, particularly from 88 Christie Street is a key site constraint that has been factored into the wider ADG assessment. Additionally, it should also be noted that the proposed development has been designed with the DCP building envelope and is compliant with the Lane Cove LEP. Due to the inability to acquire 2 Marshall Avenue, Tower 1 is shorter in length, and therefore, greater solar access is achieved in the green spine and recreation area than if apartment form were provided on 2 Marshall Avenue. Therefore, there is a solar access improvement to the green spine, without 2 Marshall Avenue.	Variation justified based on existing site context, slope of site and south facing district views. Solar access improvements to green spine also proposed. Refer **Section 6.6.2.**
	Building Floor Levels The proposed development meets the intent of the LMP, however, in some instances levels have been adjusted to accommodate the retention of existing trees, align to consistent building levels and address co-ordination to existing boundary conditions that cannot be controlled. The proposed design aims to deliver and extend the functional elements anticipated in the landscape masterplan with a high-quality design resolution. Through pre-application discussions with Council, it was acknowledged that nuanced solutions to the LMP levels would be required to address detailed site constraints and considerations.	✓ Consistent with objectives even though site conditions show variation from the LMP indicative levels.

Control	Comment	Compliance
	Pedestrian Entry/Address The proposed pedestrian access points for each building are provided at street level and in accordance with the LMP. The entrances have been designed with regard to passive surveillance for recreation areas and the pedestrian network from the public domain.	✓
	Edge Treatments The proposed development has been designed accordingly with adequate and appropriate edge treatments.	✓
	Vehicle Access Vehicular access is provided from Canberra Avenue. The proposed development incorporates a consolidated basement approach, which results in a reduced number of access points and therefore, creates a better outcome for the development, streetscape and pedestrian amenity.	✓
	Parking As per the LMP, basement car parking may intrude the green spine but only if there are already 2 levels under the building footprint. If located beneath the green spines, basement car parking is to be located so as to retain existing trees and to provide minimum 1 metre soil depth over the entire area of the basement. The proposed development complies with this provision and comprises a soil depth of 1.5m above the entire basement area.	✓
8. Landscape	**Landscape Masterplan** The proposed development has been designed in accordance with the principles and provisions under the LMP.	✓
	Open Space Configuration The northern boundary of the site along Marshall Avenue and across Area 1 and 2 will be used for recreation area.	✓
	Street Trees The proposed new planting species and vegetation has been chosen in accordance with the LMP planting schedule.	✓
	Tree Conservation/Removal The proposed development has been designed in accordance with the advice and recommendations outlined within the Arborist Report provided at **Appendix K.** Based on tree analysis, some tree removal and tree plantation will be required. The DCP envisages based on site conditions, that agreement for alternate retention/removal plans can occur during the pre-DA stage based on investigated site conditions. Based on the project teams' detailed investigations, the following variations from the Council Landscape Masterplan are proposed: • A number of existing trees at the rear of existing dwellings are of low importance or are even exempt from Council's Tree Preservation Order. It is proposed to remove these trees and include suitable replacements of species and size on the proposed landscape plans. • A number of existing trees at the rear of existing dwellings are capable of transplant and hence have been incorporated for transplant in the co-ordinated landscape scheme for the site. Informal pre-DA meetings with Council also indicate that Council are experiencing some misalignment of masterplan levels with existing levels across the precinct and therefore, are accepting design strategies to better address this. This is particularly in relation to the issue of tree retention.	✓
	Communal Open Space (Green Spines) The Green Spines have been designed with consideration to the recommended structure outlined under the LMP. Refer to **Appendix E** for further detail.	✓
	East-West Grade Transitions The development proposes minor variations with the ground levels to accommodate the retention of existing trees, align to consistent building levels and address co-ordination to existing boundary conditions that cannot be controlled.	✓

Control	Comment	Compliance
	Front Courtyards and Setbacks The front setbacks along the streetscape and the courtyards comprise of unencumbered deep soil.	✓
	Private Courtyards at ground level The proposed townhouses each comprise of a private courtyard that has direct access to the green spine and public domain.	✓
	Edge Treatment The proposed development has been designed accordingly with adequate and appropriate edge treatments.	✓
	Roof Terraces Building 1 proposes private roof terraces for the penthouses, while Building 2 and 4 propose communal roof top terraces. These have been designed in accordance with the provisions of the LMP.	✓
	Public Art A Public Art Strategy has been prepared by UAP in accordance with the provisions of the Lane Cove DCP and LMP and is provided at **Appendix F**.	✓
9. Environment / Sustainability	**Environmental Performance** An Environmentally Sustainable Development (ESD) Report has been prepared by Stantec and is provided at **Appendix I**. The proposed development will achieve the requirements outlined under the DCP.	✓
	Wind Impact A Wind Effects Report has been prepared by CPP and is provided at **Appendix R**.	✓
	Green Roofs Green roofs are provided on all three buildings.	✓
	Green Walls / Vertical Gardens The proposed development does not comprise of green walls, however, landscaping grouping is proposed on balconies and an overall green integrated landscape design solution is proposed. The communal amenity areas proposed through levels 2 and 3 of the buildings will also include landscape planting elements.	✓
	Potable Water The proposed development will implement adequate stormwater management and measures to ensure potable water use is minimised. Further detail is provided in **Appendix L** and **Appendix M.**	✓
	Urban Stormwater A Stormwater Management Plan prepared by Stantec is provided at **Appendix L** and **Appendix M,** which has been prepared in accordance with the relevant management measures outlined in the DCP.	✓
Part L - Public Art		
L1 Developer Project-Based Public Art Commissions	A Public Art Strategy is provided at **Appendix F**, which was undertaken by UAP in collaboration with the project architect and landscape architect.	✓
Part O – Stormwater Management		
O3 Property Drainage Systems	The proposed drainage system has been designed accordingly to reuse and recycle water where possible and ensure mitigation of runoff of pollutants on site. Refer to **Appendix M** for additional details.	✓
O4 Disposal of Stormwater	Stormwater runoff from all impervious areas is proposed to be collected and piped by gravity flow in accordance with the relevant provisions.	✓
O5 Stormwater Disposal Systems	Stormwater disposal systems have been proposed and design accordingly. Refer to **Appendix M**.	✓
O6 Rainwater Tanks	The proposed rainwater tank has been designed accordingly. Refer to **Appendix M**.	✓

<table>
<tr><th>Control</th><th>Comment</th><th>Compliance</th></tr>
<tr><td>O7 On-site Stormwater Detention</td><td>The proposed development comprises an OSD tank to discharge water on the site from rainfall events.</td><td>✓</td></tr>
<tr><td>O8 Construction Activities</td><td>A Stormwater Management Plan has been prepared by Stantec and is provided at Appendix M.</td><td>✓</td></tr>
<tr><td>O9 Hydrology and Hydraulics</td><td>A Stormwater Management Plan has been prepared by Stantec and is provided at Appendix M.</td><td>✓</td></tr>
<tr><td>O10 Stormwater Inundation</td><td>A Stormwater Management Plan has been prepared by Stantec and is provided at Appendix M.</td><td>✓</td></tr>
<tr><td>O11 Silt and Sediment Control</td><td>An Erosion and Sediment Control Plan has been prepared and is provided at Appendix M.</td><td>✓</td></tr>
<tr><td>O12 Drainage Easements</td><td>A Stormwater Management Plan has been prepared by Stantec and is provided at Appendix M.</td><td>✓</td></tr>
<tr><td colspan="3">Part Q – Waste Management and Minimisation</td></tr>
<tr><td>Q2 Application Requirements</td><td>An Operational Waste Management Plan has been prepared by Elephants Foot and is provided at Appendix T. Waste and recycling generation rates are outlined within the plan.</td><td>✓</td></tr>
<tr><td>Q3 Assessment Criteria/Controls for all Development</td><td>The demolition and construction of the development will be undertaken in accordance with the criteria outlined within the DCP. A Demolition and Construction Waste Management Plan has also been prepared by Elephants Foot and is included at Appendix U.</td><td>✓</td></tr>
<tr><td>Q4.3 Residential Flat Buildings</td><td>The proposed development comprises of appropriate storage and collection facilities for waste to encourage source separation, reuse and recycling. Further detail is provided in the Operational Waste Management Report at Appendix T.</td><td>✓</td></tr>
<tr><td colspan="3">R2 – Parking</td></tr>
<tr><td>2.3 Car Parking Rates Near St Leonards Railway Station</td><td>The site is located within 400m of the St Leonards Railway Station and therefore, the provisions of this clause apply. The following table outlines the recommended parking rates.
<table>
<tr><th>Use</th><th>Residents</th><th>Visitors</th></tr>
<tr><td>RFB</td><td>0.5 spaces per studio
0.5 space per 1-bed
0.9 space per 2-bed
1.4 space per 3-bed
2 spaces per 4+bed
1 disabled space for each adaptable housing unit
1 onsite removalist truck space per 100 units
1 car wash bay per 50 units for developments over 20 units.</td><td>1 space per 5 units
1 disabled space per 10 visitor spaces (minimum)</td></tr>
</table>
Based on the rates provided above, the development would require a total of 273 parking spaces to comply. Council's DCP permits a higher parking supply where a market demand study demonstrates a higher demand (Clause 2.3(d)).

With regard to the market demand, the development proposes 309 car parking spaces, which is allowable under the provisions of the DCP. This will ensure the minimisation of the risk of overspill on nearby streets and traffic congestion. Additionally, the proposed development provides five car wash bays</td><td>✓</td></tr>
<tr><td>2.6 Bicycle Parking</td><td>Bicycle parking is to be in accordance with the table below:
<table>
<tr><th>Use</th><th>Residents</th><th>Visitors</th></tr>
<tr><td>RFB</td><td>1 per 4 dwellings</td><td>1 rack + 1 rack per 10 dwellings</td></tr>
</table></td><td>✓</td></tr>
</table>

Control	Comment	Compliance
	The proposed development provides a total of 82 bicycle spaces, which is consistent with the requirement of the DCP.	
2.7 Motorcycle Parking	In accordance with the DCP, 1 motorcycle parking space should be provided per 15 car parking spaces for all types of development. The development proposes 23 motorcycle spaces and is therefore compliant with the requirements. The motorcycle spaces will be appropriately designed with adequate spacing.	✓
R5 Sustainable Travel and Access Plan (STrAP)		
5.1 General Provisions	A STrAP is required for residential flat buildings of 75 or more units and for development within 400m of the St Leonards Railway Station. Green Travel Initiatives are outlined in Traffic and Parking Assessment prepared by Stantec at **Appendix N**. A Sustainable Transport Plan can be provided as a condition of consent.	✓
R6 Traffic Impact Assessment		
6.1 General Provisions	A Traffic Impact Assessment is provided at **Appendix N** and has been prepared in accordance with the provisions of the DCP.	✓
R7 Construction Traffic Management Plan		
-	A Construction Traffic Management Plan will be prepared at the construction stage of the development.	✓

5.3.1 Consistency with the St Leonards South Landscape Masterplan

Since the proposed development is located within the St Leonards South Precinct, the site is subject to the St Leonards South Landscape Masterplan (LMP), which was adopted by Council to provide for high residential density based on transit-orientated development principles. The LMP includes landscape design principles and provisions for different open space typologies, including the pocket park, the streetscape and setbacks, the green spine, private courtyards and terraces, and rooftop gardens. The LMP also includes provisions on tree removal and retention, planting, public art and lighting. The proposed development has been designed in accordance with the provisions and principles of the LMP. Refer to the Landscape Report prepared by Arcadia at **Appendix E** for further detail.

6.0 Environmental Assessment

The following sections provide an assessment of the likely impacts of the development, the suitability of the site for the proposal, and the public benefits in accordance with Section 4.15 of the EP&A Act.

6.1 Built Form and Massing

The proposed development has been designed to consider a range of factors, including the existing and future built form surrounding the site, the development potential of the site, the amenity of future occupants and the unique site constraints and opportunities of the site. As demonstrated, the proposed development is consistent with the maximum building height and floor space ratio set out in the Lane Cove LEP. These incentive planning controls have been designed to guide the bulk and scale of development on the site. In addition to this, the built form and massing of the building has been selected to maximise the amenity of future occupants whilst not compromising or affecting the surrounding uses.

6.1.1 Amalgamation Pattern and Minimum Site Area

Clause 7.2 of the Lane Cove LEP establishes minimum site area requirements, which ultimately form the amalgamation pattern for the St Leonards South Precinct. **Table 10** below provides a comparison of the proposed development against the minimum site area requirements specified for each area.

Table 10 Minimum Site Area and Amalgamation Pattern Assessment

	Area 1	Area 2	Area 4	Total
Required	3,000m^2	2,000m^2	1,500m^2	6,500m^2
Proposed	2,736.5m^2	2,320m^2	1,670.5m^2	6,727m^{2*}

**Note: overall site amalgamation area of Areas 1, 2 and 4 achieved notwithstanding Area 1 variance.*

As outlined above and in the proposed amalgamation pattern illustrated in **Figure 13** below, the proposed development is largely compliant with the amalgamation pattern and minimum site area requirement established for the precinct, except for Area 1. Further, if the minimum site areas for Area 1, 2 and 4 are combined, the development site area exceeds that minimum requirement. The minor variation with Area 1 is a result of the inability to reasonably acquire the adjoining land at 2 Marshall Avenue.

Despite the minor variation, the proposed development will continue to achieve the objectives of the precinct and is compliant with all other development standards, including the minimum recreation area for Area 1 specified under Clause 7.4 of the Lane Cove LEP.

Additionally, the proposed development has been designed and scaled appropriately to respond to the adjoining site at 2 Marshall Avenue in both its current form as well as its potential future condition. It also demonstrates an appropriate response to the Land and Environment Court Planning Principle for site isolation under *Karavellas v Sutherland Shire Council*.

Further justification on the variation from the Area 1 minimum site area requirement and amalgamation pattern for Area 1 is provided in the Clause 4.6 Variation Request prepared by Ethos Urban at **Appendix H**. This includes analysis and discussion against the Land and Environment Court Planning Principle for site isolation under *Karavellas v Sutherland Shire Council,* which is not replicated in full here but is instead provided in detail within the Clause 4.6 variation.

DCP & LMP
Original masterplan

Site Proposal
Reconfiguration whilst maintaining core elements

Figure 13 Amalgamation Pattern

Source: Rothe Lowman

6.1.2 Floor Space

The proposed development is consistent with the maximum incentive floor space ratio (FSR) of 3.85:1 for Area 1 and 3.55:1 for Area 2 and 4.

Based on existing precedent within the precinct as well as legal advice prepared by Mills Oakley (**Appendix X**), gross floor area (GFA) can be distributed across Areas 2 and 4 as the same FSR standard of 3.55:1 applies. This strategy has been adopted and as such, the proposed FSR for Area 2 slightly exceeds the maximum, while the proposed FSR for Area 2 remains below the maximum.

Table 11 below outlines the proposed GFA in comparison with the maximum allowable GFA, which clearly identifies the proposed developments compliance with the incentive FSR requirement.

Table 11 Floor Space Ratio Compliance

Area	Site Area	Allowable FSR	Allowable GFA	Proposed FSR	Proposed GFA
1	2,736.51m^2	3.85:1	10,535.5m^2	3.85:1	10,535.5m^2
2	2320.6m^2	3.55:1	8,237.8m^2	3.7:1	8,525.8m^2
4	1670.5m^2	3.55:1	5,930.3m^2	3.37:1	5.642.3m^2

6.1.3 Building Height

The proposed development is entirely consistent with the maximum incentive building height specified under Clause 7.1(3) of the Lane Cove LEP, as well as the storey height requirement for each area specified under the Lane Cove DCP. This is outlined in **Table 12** below.

Table 12 Building Height Compliance

Area	Max Building Height	Proposed Building Height	Max Storey Height	Proposed Storey Height
1	65m	65m	19	19
2	53m	53m	15	15
4	44m	44m	12	12

It should be noted that the proposed development incorporates sun shading devices on the eastern and western facades of the buildings in Area 2 and 4, which extend horizontally at various levels.

Although the shade structures comply with the maximum height control applicable to Areas 2 and 4, they will partially extend into the Green Spine to the east which is marked on the LEP maps with a 2.5m height limit. However, the 2.5m height control in the Green Spine technically does not apply to the proposed sun shading devices as they do not constitute or fit within the definition of a "building". This approach has been confirmed through legal advice prepared by Mills Oakley (**Appendix Y**).

It is noted that the sun shading devices result in an improved building outcome, from an ESD perspective (heat loading and energy efficiency), as well as from an architectural perspective in terms of articulation and fenestration. This is detailed in Section 5.02 of the Urban Design Report at **Appendix B**. The design outcome is therefore positive, and the legal advice confirms that the minor projections are able to be lawfully approved.

On this basis, the proposed development, including the sun shading devices, which will result in a far better urban design and residential amenity outcome will continue to comply with the maximum height control and should be approved based on its merits.

6.1.4 Podium and Street Wall Height

Under the Lane Cove DCP, Area 1, 2 and 4 specifies a street setback from Level 6 and above, meaning essentially a five storey podium is required for each building. In order to maximise opportunities for solar access to apartments and communal open spaces, the proposed development seeks an alternate built form response to this provision.

Building 1 proposes a street wall height of 2 storeys and Building 2 and 4 propose a street wall height of 4-5 storeys. The primary reason for having lower street wall heights for each building is to provide a more responsive residential character, creating neighbourhood scale.

The alternative podium strategy will enhance the permeability and accessibility of residents throughout the development, particularly, in relation to the communal open space proposed within the podium of Building 1. Stairs and ramps will be provided to allow access to the recreation deck from the green spine to ensure stronger connectivity for all residents across the development.

Notwithstanding the varied approach to street wall height, the development has been appropriately designed with key consideration of impacts to the surrounding development. The proposed podium demonstrates a high level of residential amenity with an appropriate building separation to the southern boundary that are at or greater than the requirements of the ADG.

Overall, the alternative podium strategy will ensure a better design outcome for the site and will not have any adverse impacts to the residents of the development, as well as the broader precinct.

6.1.5 Setbacks and Building Separation

The proposed setbacks of the development are generally consistent with the relevant provisions of the Lane Cove DCP and ADG. An excerpt of the proposed setback diagram is provided in **Figure 14** below.

Building 1 proposes the following setbacks:

- Northern Boundary: 6 metres for the entire height of the building fronting 2 Marshall Avenue.
- Canberra Avenue: 7-9.8 metres at ground level and 7 metres from Level 3 and above.
- Southern Boundary: 4.7 metres at ground level and 12 metres from Level 2 and above fronting Area 3.
- Western Boundary: 12 metres for the entire height of the building fronting the green spine.

Building 2 proposes the following setbacks:

- Holdsworth Avenue: 4 metres at ground level, 5.5 metres at Level 5 and 7 metres from Level 6 and above.
- Eastern Boundary: 12 metres for the entire height of the building fronting the green spine.

Building 4 proposes the following setbacks:

- Holdsworth Avenue: 4 metres at ground level, 5.8 metres at Level 5 and 7 metres from Level 6 and above.

- Southern Boundary: 6 metres at ground level, 9 metres at Level 4, 10.5 metres at Level 5, and 12 metres from Level 6 and above.
- Eastern Boundary: 12 metres for the entire height of the building fronting the green spine.

Between Building 2 and 4, a building separation of 8 metre is proposed at the ground level, with an 18 metre building separation proposed from above the podium. Appropriate privacy measures have been included and discussed further in **Section 6.6.1** to address any potential adverse impacts to the residential apartments.

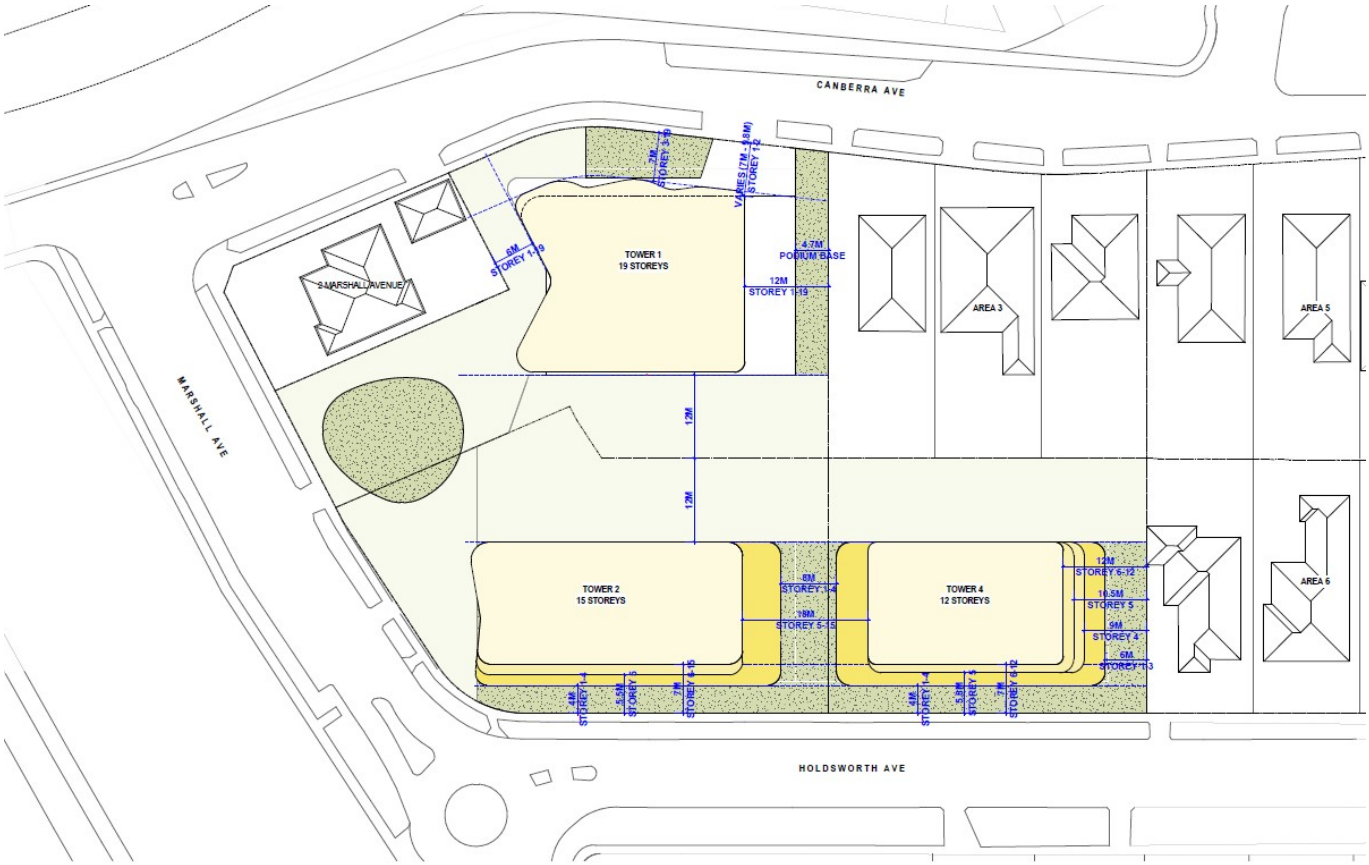

Figure 14 Proposed Setback Diagram

Source: Rothe Lowman

6.2 Design Excellence

As mentioned in **Section 2.2** of this report, the proposed development has been subject to thorough and extensive consultation with Lane Cove Council's Design Panel.

The proposal was deemed capable of achieving design excellence pending the resolution of several design items, particularly in relation to building expression and materiality. These items have been resolved in design development, as outlined within the DEP Response and the Urban Design Report at **Appendix D** and **Appendix B**, respectively.

An overview of the proposal's consistency with the provisions of Clause 7.6 of the Lane Cove LEP is provided in **Table 13** below.

Table 13 Design Excellence Assessment

Criteria	Assessment
(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,	A high standard of architectural design and materials have been used in the development, which form a differentiated façade expression for each building.
(b) whether the form and external appearance of the development will improve the quality and amenity of the public domain,	The proposed development addresses three different street frontages and delivers a new public open space to the north of the site. Each building will enhance the landscape condition to the street frontages and will significantly increase the future tree canopy space.

Criteria	Assessment
(c) whether the development protects and enhances the natural topography and vegetation including trees or other significant natural features,	The ground plane design for the site allows for the retention of approximately 20 trees on or in the public domain directly addressing the site. The ground levels of the proposal work with the intended design levels of the green spine that form part of the DCP Masterplan.
(d) whether the development detrimentally impacts on view corridors,	The design proposal sits within the key DCP building envelope planes, and therefore, will protect and enhance view corridors available from adjacent developments.
(e) whether the development achieves transit-oriented design principles, including the need to ensure direct, efficient and safe pedestrian and cycle access to nearby transit nodes,	The proposal includes a high level of pedestrian connectivity at the ground plane between all three buildings. A high level of passive surveillance is provided for each lobby, along with to and from communal areas. A direct pathway is provided from each lobby to Canberra Avenue or Holdsworth Avenue, which provides a short walk to St Leonards Railway Station.
(f) the requirements of the *Lane Cove Development Control Plan,*	The proposal generally meets the requirements of the Lane Cove DCP, which is outlined above in **Section 5.3.** Where variations are proposed, these are justified, and meet the intent/objectives of the provision.
(g) how the development addresses the following matters:	-
(i) the suitability of the land for development.	The site has been amalgamated to deliver on the vision and intent of the St Leonards South Precinct as a high density residential area. The proposed development provides a quantity of open space at the northern portion of the site.
(ii) Existing and proposed uses and use matrix.	The proposed development is for a high density residential development, comprising of 232 residential dwellings, 28 of which are affordable housing units. The redevelopment of the site therefore proposes a strategy that will contribute to housing within a strategic location on a site that is currently underutilised.
(iii) Heritage issues and streetscape constraints.	The site is not identified as having heritage significance, nor is it located in proximity to any heritage items. No existing streetscape conditions create significant constraints to the design.
(iv) The relationship of the development with other development (existing or proposed) on the same site or neighbouring sites in terms of separation, setbacks, amenity and urban form.	The proposed development has been designed accordingly to directly respond to surrounding development, with particular regard to residential amenity, urban transition and in direct response to the Lane Cove LEP, DCP and LMP masterplan envelopes. Appropriate setbacks and building separations are proposed for each of the buildings, which is further discussed in **Section 6.6**.
(v) Bulk, massing and modulation of buildings.	The proposed development is generally consistent with recommended building envelopes set out in the Lane Cove DCP and are below the maximum incentive building height. The proposed development comprises a lower street wall height for the building fronting Canberra Avenue (2 storey podium), however, this is justified and is considered appropriate for the site. Refer to **Section 6.1.4.**
(vi) Street frontage heights,	The proposed development adopts a street frontage height of 2 storeys for Building 1 and a street frontage height of 4-5 storeys on Building 2 and 4.
(vii) Environmental impacts such as sustainable design, overshadowing, wind and reflectivity,	The proposal achieves a high level of sustainability and does not result in adverse reflectivity, overshadowing, acoustic or wind impacts. Further discussion regarding these matters is provided in technical assessments accompanying the SEE.
(viii) The achievement of the principles of ecologically sustainable development,	The proposal will implement several ESD initiatives as discussed in **Appendix I**.
(ix) Pedestrian, cycle, vehicular and service access, circulation and requirements,	The proposed development will improve the pedestrian network with the widening of surrounding footpaths and introduction of the

Criteria	Assessment
	through-site link between Holdsworth Avenue and the green spine. The proposed vehicular and service access has been designed to ensure it will seamlessly integrate into the existing traffic network.
(x) The impact on, and any proposed improvements to, the public domain,	The proposed development will result in improvements to the public domain by providing a permeable street network and a public pocket park at the northern gateway of the precinct.
(xi) The configuration and design of publicly accessible spaces and private spaces on the site.	The proposed development has successfully integrated public recreation areas and the communal open space areas across the development. They have been located and designed carefully with regard to safety and accessibility.

6.3 Building Articulation and Materiality

The proposed development has adopted a façade approach with two key elements, including podium and tower. While maintaining a consistent architectural and design theme across the development, each building has been developed to respond to their specific street contexts.

The site fronts three unique street characters that are evolving and changing as part of the St Leonards South Masterplan. To respond to these three characters, a specific design response and separate character for each building on the site is proposed. This has been done through the slightly varying colours and material palette selected and the differing shape and built form for each building. This is further explored below and in the Urban Design Report (**Appendix B**).

6.3.1 Podium Façade Response

Building 1 Podium

Building 1 is located directly adjacent to the two most divergent contexts, including the densely vegetated landscape against the rail corridor and the high-density urban context just beyond to the north.

Being the tallest tower within the St Leonards South Precinct, the role of the podium is to mediate and act as an appropriate transition between the high-density centre to the north and the lower density buildings to the south. Through conceiving the podium as a landscaped shelf, the scale of the built form underneath is enabled to better fit with the prevailing two storey character.

An intensely landscaped, and cascading ground plane of sandstone walls and shelfs anchors the building into the terrain and enables visual concealment of services and vehicular access.

Additionally, vertical articulation of the lobby creates a visual market and allows for draw of the public park under the building and into the site.

Figure 15 illustrates the elevation of Building 1 along Canberra Avenue.

Figure 15 Proposed Character and Building Expression along Canberra Avenue

Source: Rothe Lowman

Building 2 Podium

Building 2 forms a transition role within the precinct, due to its positioning at the edge of the St Leonards South. The interface of the building with the broader precinct and the pocket park will seek to mediate the change in scale from high rise to medium rise. Whilst achieving a 4-5 storey podium, the proposed townhouses create a more human scale and a perceived two-storey datum for the entire street frontage along Marshall Avenue.

The proposed low sandstone walls will anchor the podium and directly respond to the existing sandstone retaining walls to the north of Marshall Avenue and east of Holdsworth Avenue.

The Building 2 lobby is long and is to be integrated with the communal area, which will activate both the public street, as well as form a visually attractive backdrop to the pocket park to the north.

Figure 16 below illustrates the proposed elevation of Building 2 at the corner of Marshall Avenue and Holdsworth Avenue.

Figure 16 Character and Building Expression for Building 2 at the corner of Marshall & Holdsworth Avenue

Source: Rothe Lowman

Building 4 Podium

Building 4 continues the two-storey terrace style language along Holdsworth Avenue. The podium steps the terrace walls in sandstone, which evokes the materiality of existing buildings, and the natural rock shelfs nearby. Fine-grain detailing is proposed in the lower levels, which relates to the existing small scale residential dwellings.

Above the podium line, deeper balcony projections are created as the building is further setback from the street and the side boundaries. These floors are proposed to be treated with painted metal infill cladding to add shape to the composition of the spandrel, shading device, and glazing.

Figure 17 below illustrates the proposed elevation of Building 4 along Holdsworth Avenue.

Figure 17 Character and Building Expression for Building 4 along Holdsworth Avenue

Source: Rothe Lowman

Figure 18 below provides a detailed view of the proposed lobby and podium response of each building, which have specifically been designed in response to the unique street character and context.

Figure 18 Differences in Lobby and Podium of each building (Building 1, 2 and 4, respectively)

Source: Rothe Lowman

6.3.2 Tower Façade Response

The proposed tower forms of each building have been designed to directly respond to orientation and environmental performance considerations and thus, visual appearance and shape are slightly differentiated across each building.

In response to feedback received by the Panel, the towers have proposed a well-balanced solid to glass ratio and are inclusive of shading elements to incorporate building articulation and ensure residential amenity. As part of the solar shading devices, vertical sunshades in metallic bronze tone are also proposed to the building, which are angled and placed to block late afternoon summer sun, and allow penetration of winter sun, while still achieving the significant district views.

As seen in **Figure 19** below, each tower has a deliberate and specific colour tone across all levels to visually separate each building.

Figure 19Differences in Tower Facade and Expression (Building 1, 2 and 4, respectively)

Source: Rothe Lowman

6.4 Overshadowing

The proposed development is consistent with the required building envelope, including the maximum building height, and therefore, there are no substantive overshadowing impacts resulting from the proposal that were not already envisaged as part of the St Leonards South Precinct Masterplan.

Given the location of the site on the outskirts of the St Leonards CBD, and the prevalence of significantly taller towers surrounding the site, most areas to the west and south of the site are already overshadowed. Notwithstanding, a detailed shadow analysis has been undertaken as part of this development application and is provided at **Appendix B**.

Overall, the results of the shadow analysis demonstrate that the proposed development will have a minor additional overshadowing impact to the surrounding development. **Figure 20** below illustrates the proposed shadow impact during mid-winter.

Figure 20 Shadow Analysis

Source: Rothe Lowman

6.5 Views and Visual Impact

The proposed built form and massing generally aligns with the scale and character of the surrounding buildings in the rapidly evolving St Leonards South precinct and in the surrounding area. The proposed development is generally compliant with the Lane Cove LEP maximum incentive building controls and achieves the intent of the urban design

and built form strategy as set out in the Lane Cove DCP and Landscape Masterplan. On this basis, the proposed development will have no adverse impacts on views to and from the surrounding area.

6.6 Residential Amenity

The proposed development has been designed to provide all dwellings with high quality internal amenity and outlook, commensurate with the premium location and product proposed. As outlined in the Design Verification Statement provided at **Appendix C**, the proposal has been designed in accordance with the nine principles of *State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development* (SEPP 65) and the Apartment Design Guide (ADG).

The underlying purpose of the ADG is to provide guidance for the development of new apartment buildings, specifically in relation to achieving the design principles set out in SEPP 65. An assessment of the proposal's consistency with the ADG objectives and design criteria is summarised as follows:

- The proposed development provides a total of 3,403.3m^2 communal open space, equating to approximately 50% of the site, and therefore significantly exceeds the ADG requirement of 25%.
- 50% of the usable parts of the communal open space achieve a minimum of 2 hours of direct sunlight between 9am to 3pm.
- Deep soil exceeds the minimum requirement of 25% of the site and the dimensions of the deep soil zones exceed the minimum 6m dimension for 7% of the site;
- Less than 2% of apartments achieve no direct sun, which is significantly less than the maximum of 15%.
- 68.5% of apartments are naturally cross ventilated which exceeds the ADG recommendation.
- 64% of apartments received 2 hours of sunlight in mid-winter, which is a significant achievement given the constraints of existing overshadowing from buildings to the north, and given the site's orientation to south facing views and aspect.
- Apartment sizes meet or exceed the minimum requirement.
- Private open space is provided for each unit in the form of balconies or terraces with minimum areas and depths in accordance with the ADG.

Where any variations to the ADG performance criteria are proposed, they are further discussed in the sections below.

6.6.1 Visual Privacy and Building Separation

Part 3F of the ADG sets minimum separation distances to be shared equally between neighbouring sites, in order to achieve reasonable levels of external and internal visual privacy.

The ADG requires a separation distance of 12 metres for habitable rooms and balconies up to 4 storeys, 18 metres for habitable rooms and balconies from 5-8 storeys, and 24 metres for habitable rooms and balconies from 9 storeys and above.

While the proposed setback on the southern boundary of Building 1 and 4 is compliant with the ADG requirement, the proposed building separation between Building 2 and 4 slightly varies it by adopting an 8m separation at the ground level and an 18 metre separation from above Level 6.

Notwithstanding, breaks in the building form are proposed between buildings 2 and 4, where carefully placed windows and privacy screens are proposed to ensure an appropriate level of visual privacy. Accordingly, the proposed development successfully satisfies the Objective 3F-1 of the ADG in that, reasonable levels of external and internal visual privacy are achieved. The break between the building has also been treated with landscaping and materials to create an inviting pedestrian space between the buildings into the green spine. In this regard, both visual privacy and building 'breathing space' is achieved by the building.

6.6.2 Solar Access

The proposed development achieves an average solar access of 64% of the apartments across the entire development, which slightly varies the ADG design recommendation of a minimum of 70% of apartments receiving 2 hours of sunlight in mid-winter.

As emphasised throughout this report, the proposed development is largely compliant with the building envelopes and green spine requirements outlined within the Lane Cove LEP and DCP. However, the significant slope on the site, together with the north-south orientation of the street grid and green spine introduce site specific constraints and challenges impacting on solar access.

Additionally, the surrounding context to the site, particularly the development at 88 Christie Street that is currently under construction to the east, has significant overshadowing and substantively impacts on the solar access of the development. Area 1, being closest to this development is affected the most. When considering the shadow impacts of the complete development, the rate of solar access to apartments in Area 1 will be approximately 61% across the entire development site, which varies the ADG design guidance of 70% of apartments for 2 hours in mid-winter.

When using and assessing sites under the ADG, it is important to recognise individual site constraints with respect to achieving solar access attainment and that pragmatically providing full sunlight access may not be possible on some sites. For example, design responses should consider:

- where greater residential amenities can be achieved along a busy road or railway line by orientating the living rooms away from the noise source this may impact on the solar access figures;
- on south-facing sloping sites this may impact on the solar access figures;
- where significant views are oriented away from the desired aspect for direct sunlight, this may impact on the solar access figures; and
- for adaptive re-use of existing buildings on heritage items, this may impact on the solar access figures.

Where this is the case, the proposal should demonstrate how the site constraints and orientation affect meeting the 70% design guidance and how the development meets the objectives in other ways.

As mentioned above, several compensatory amenity measures have been incorporated to ensure the highest standard of residential amenity for the development, notwithstanding the numerical variation from the ADG design guidance, including:

- above ADG minimum apartment sizes;
- apartments orientation towards solar access where possible and orientated to either south facing or district regional views in other instances;
- an abundance of private, communal and public open space;
- over 50% of site area dedicated to communal open space (at a variety of levels within the development), well exceeding the ADG's minimum of 25%.
- the apartments that don't received 2 hours solar access in mid-winter have been planned to maximise their access to sun at other periods of the year.
- only two apartments within the development receive no sun, or 0.5% of the development total, which is well below the 15% allowable under the DAG. This will enable the vast majority of those apartments that are impacted by the towers to the north to gain solar access of reasonable timeframes in periods closer to the March and September Equinox.

Upon discussion with Council and feedback received on 11 February 2022, Council indicated that development assessments can and do consider averaging solar access over the entirety of the development if shadow impacts are unavoidable and the development demonstrates exceedances in amenity through other aspects. With this, the overall development will indicatively achieve 65% of apartments receiving two hours of solar access in mid-winter, which varies the ADG performance requirements, however, is justified on site specific circumstances as mentioned above.

The proposed development has been through extensive modelling and testing to ensure as much solar access is achieved as possible. The key design solutions to maximising solar access was through the shaping of the eastern orientation of Tower 1 and the internal floor plate configuration of all three towers have been positioned towards the western façade. Further detail on the proposed solar access strategy is provided in **Appendix B**.

6.6.3 Common Circulation and Spaces

Objective 4F-1 of the ADG relates to common circulation spaces, which are to received good amenity and properly service the number of apartments. To achieve this objective, the ADG requires that the maximum number of apartments off a circulation core on a single level is eight.

The proposed development generally complies with this requirement, except for one single level in the entire development, which includes nine apartments. For all other levels, the quantity of apartments per floor range from 2 to 8. It is emphasised that on all levels, corridors are provided with multiple points of access to natural light and ventilation to the lobby.

6.7 Traffic and Parking

Stantec have prepared a Transport Impact Assessment (**Appendix N**) which assesses the main operational traffic and transport features of the proposed development.

6.7.1 Vehicular Access

Vehicular access to the site is provided from Canberra Avenue as the proposed development comprises a shared four level basement across all three areas. The proposed consolidated basement strategy is a direct response to the provisions and objectives of the Lane Cove DCP, which encourages *that 'where areas are consolidated, minimise vehicle access points.'* Not only does this strategy assist in the rationalising of driveways and vehicular access points, it also enhances the streetscape through additional street tree planting, and increases the opportunity for additional on-street car parking.

6.7.2 Traffic Generation and Impacts

As part of the broader St Leonards South Precinct Masterplan, Lane Cove Council undertook modelling to understand the traffic impacts of approximately 2,400 dwellings forecasting within the precinct. The peak hour traffic generation rates for residential developments in the St Leonards South Precinct were 0.14 trips per dwelling in the AM peak and 0.07 trips per dwelling in the PM peak.

The proposed development has a total site area of 6,728m^2, which accounts for approximately 11% of the total minimum site area of the St Leonards South Precinct (60,900m^2). The proposed development comprises of 232 dwellings, which is below the assumed rate of 265 dwellings in Council's AIMSUN traffic model.

Adopting the traffic generation rates used for AIMSUN modelling suggests that the proposal will generate 32 and 16 vehicle trips in the AM and PM peak hours respectively.

On this basis, it is appropriate to conclude that the traffic impacts of the proposal have already been considered as part of the Council's AIMSUN modelling, with no additional impacts expected.

6.7.3 Parking

Car Parking

The proposed development will include a total of 309 car parking spaces (272 residential spaces and 36 visitor spaces) across four basement levels. The proposed parking is consistent with the minimum parking rate within the St Leonards Railway Precinct specified under the Lane Cove LEP, which requires at least 273 parking spaces.

The proposed parking supply considers the market demand for premium residential apartments in the inner Sydney suburbs where residents are largely owner occupiers. Car ownership rates tend to be slightly higher in this demographic with a more balanced use across the day rather than limited to peak period trips. The proposed parking provision would also ensure that the already high demand for on-street parking is not intensified any further.

Bicycle and Motorcycle Parking Spaces

The proposed development is strategically located to take advantage of the existing public and active transport infrastructure. Thus, a total of 82 bicycle parking spaces and 23 motorcycle spaces are proposed for the development, which is above the minimum requirement specified under the Lane Cove DCP.

Service Vehicles

The Lane Cove DCP requires one removalist truck space per 100 residential apartments. Based on this rate, the proposed development is required to provide up to three on-site loading bays.

A total of three loading bays and therefore, complies with the Lane Cove DCP provisions. The combination of one medium rigid and two small rigid vehicle bays is considered appropriate to cater for occasional removalist demand as well as waste collection and deliveries.

Additionally, it is noted that the proposed development comprises five car wash spaces, which is also compliant with the Lane Cove DCP requirement.

6.7.4 Green Travel Initiatives

A Green Travel Plan (GTP) is recommended to be implemented, which will ensure that the transport infrastructure, services, and policies both within and external to the site are tailored to the users and co-ordinated to achieve the most sustainable outcome possible. The intention of a GTP is to promote more sustainable and environmentally friendly travel choices for residents. A number of potential measures and initiatives are recommended to be implemented to encourage more sustainable travel nodes. Further detail is provided in Section 5 of the Transport and Parking Assessment at **Appendix N**.

6.8 Tree Removal and Landscaping

An Arboricultural Impact Assessment has been prepared by Blues Bro and has been attached at **Appendix K**. This report identifies the trees within the site that are likely to be impacted by the proposed works and recommended tree protection measures to mitigate adverse impacts.

6.8.1 Tree Removal, Retention and Relocation

A total of 51 trees have been assessed and inspected as part of this assessment, which are found to be in moderate health or better. Of these, 19 trees are proposed to be removed as a result of the proposed development, which majority are found to either be exempt species or are of a low retention value. Despite the removal of these trees, the green spine of the development is proposed to have an extensive tree planting strategy, which includes the retention of approximately 20 trees, the planting of 37 new trees, and the potential to replant 12 trees.

It is also noted that some of the levels outlined within the masterplan do not accurately depict the existing levels on the site. Where this is the case, the proposed development has addressed this by providing an improved scheme with existing levels maintained where necessary for the retention of high value trees. Existing high value trees are retained where possible or are proposed to be relocated where appropriate.

Further details on the landscaping and tree planting strategy is provided in the Landscape Report prepared by Arcadia at **Appendix E**.

6.8.2 Landscaping and Deep Soil

The proposed development has been appropriately designed and landscaped generally in accordance with the St Leonards South Landscape Masterplan provisions.

Additionally, the proposed basement car park is partially located beneath the green spine. Despite this, 50% of deep soil will be achieved and maintained as part of the Green Spine. It is noted that 1.5 metre soil depth over the entire area of the basement is proposed, which is above the 1 metre of soil referenced in the LMP (and is consistent with other DAs being assessed in the precinct). The proposal therefore complies with both the St Leonards South Landscape Masterplan as well as precedent set by other development applications within the precinct.

6.9 Other Impacts of the Development

A summary of the other impacts of the development have been undertaken by the relevant specialist consultants and are appended to this SEE as set out in **Table 14** below.

Table 14 Summary of other technical assessments

Consideration	Consultant	Summary	Reference
Contamination	Geosyntec	Geosyntec Consultants (Geosyntec) have undertaken a Preliminary Site Investigation (PSI) to determine the potential for land contamination to occur on the site and whether the site is suitable for the proposed development.	**Appendix P**

Consideration	Consultant	Summary	Reference
		The findings of the investigation do not indicate the presence of widespread chemical contamination on the site. The site has historically been used for detached residential purposes and it is considered that it will meet the land use suitability for high-density residential subject to the implementation of the following: • *Completion of a hazardous materials (hazmat) survey across the site, and preparation of associated management plans for removal of identified hazardous materials where required.* • *Implementation of a Soil Management Plan with an Unexpected Finds Protocol to manage any proposed excavations during future redevelopment works at the site and guide appropriate waste classification and offsite disposal of surplus materials.* • *Noting the observed presence of fibre cement sheeting on site structures, following the removal of site buildings, an asbestos clearance across the ground surface by a Licenced Asbestos Assessor will be required.*	
Geotechnical	Morrow	The Geotechnical Investigation undertaken by Morrow found that the site conditions are generally consistent with regional Sydney Geology. Overall, the site is geotechnically suitable for development and excavation may be carried out safely provided that the recommendations of this report are implemented in design and construction of the works.	**Appendix Q**
Wind Impact	CPP	CPP have undertaken a qualitative wind assessment of the proposed development and based on their analysis conclude that pedestrian wind comfort levels surrounding the site at ground level will be suitable for public access ways and pedestrian comfort, subject to further wind tunnel testing during detailed design.	**Appendix R**
Reflectivity	CPP	An assessment of the reflectivity and glare resulting from the proposed development has been undertaken by CPP to determine the impact on areas surrounding the development. At locations investigated in the review, it is expected that the proposed development (with some mitigation measures as recommended) will meet reflectivity requirements.	**Appendix S**
Noise	Stantec	An Acoustic Report has been prepared by Stantec, which considers both construction and operational noise impacts to the proposed development as well as the surrounding sensitive receivers. Based on the findings of the assessment, the report concludes that relevant noise criteria and objectives can be met and thus, approval is recommended to be granted.	**Appendix O**
Waste Management	Elephants Foot	An Operational Waste Management Plan (OWMP) has been prepared by Elephants Foot and is provided at **Appendix T.** The OWMP identifies how waste will be managed in the development and address waste management requirements in line with the applicable standards, the NSW State Legislation and the Lane Cove DCP provisions. A Construction and Demolition Waste Management Plan has also been prepared by Elephants Foot and is provided at **Appendix U**. The Construction Contractor will be responsible for implementing the management procedures outlined within the plan.	**Appendix T** **Appendix U**
Building Code	BCA Logic	Relevant BCA and access matters have been considered in the preparation of the DA.	**Appendix V**
Accessibility	BCA Logic	Relevant BCA and access matters have been considered in the preparation of the DA.	**Appendix W**

6.10 Suitability of the site for the development

The site is suitable for the proposed development for the following reasons:

- It is zoned R4 High Density Residential, and the proposed use is consistent with the permissible uses and the objectives of this zone as well as the specific St Leonards South Precinct objectives.
- The site can appropriately accommodate the proposed development while balancing environmental considerations and preserving the amenity of the neighbouring properties.
- The site is located within a rapidly evolving and strategic location, and the proposed development will result in improved pedestrian environment, providing additional connections in and around the block.
- The proposed development responds to the existing and future character of the area, through providing architectural elements that ensure an appropriate transition between the commercial land uses to the north and the residential uses to the south.

6.11 Public Interest

The proposed development is in the public interest for the following reasons:

- The urban context of St Leonards South will be significantly improved, contributing to its overall vitality and activation.
- It will result in the delivery of a range of dwelling typologies to cater for the growing population and changing demographic within the Lane Cove LGA and provide increased housing supply.
- The proposal will contribute to the St Leonards open space network by providing a well-design and landscaped pocket park at the northern gateway of the precinct.
- It will redevelop an underutilised site to provide a much better outcome that is consistent with the vision and direction of St Leonards South;
- The proposal has been architecturally design at a high-quality standard and will demonstrate design excellence, as well as incorporate high sustainability benchmarks.
- The proposal will redevelop an underutilised site to provide a much better outcome that is consistent with the vision and direction of St Leonards South.

7.0 Conclusion

The proposed development seeks approval for the construction of three residential flat buildings with a four storey basement, comprising a total of 232 residential dwellings and a pocket park.

This SEE has provided a detailed assessment of the proposal against the relevant matters under section 4.15(1) of the EP&A Act. The application is recommended for approval given the following reasons:

- The proposed development is consistent with the aims and objectives of the Lane Cove LEP, the Lane Cove DCP, the St Leonards South Landscape Masterplan, as well as the relevant State Environmental Planning Policies and where variations are proposed, these have been justified.
- The proposed development will deliver high-quality residential dwellings within a strategic location, close to jobs, entertainment, places of interest, and public transport and services.
- The proposed development has been carefully considered in relation to the surrounding context and character of the evolving precinct.
- The supporting technical studies which accompany this DA confirm that the environmental impacts associated with the proposal are generally positive and will not give rise to any adverse impacts that cannot be mitigated and managed.
- The proposed development is suitable for the site and is in the public interest.

In summary, the proposed development is acceptable in terms of the matters for consideration under Section 4.15(1) of the EP&A Act. Accordingly, the development application is considered appropriate for the site and supportable for determination to enable the redevelopment of Area 1, 2 and 4 of the St Leonards South Precinct.